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PSYCHOLOGICAL ABSTRACTS

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GENERAL

1186. **Achilles, P. S. Proceedings, third spring meeting, New York branch, American Psychological Association.** *Psychol. Bull.*, 1932, 29, 552–568.—*J. F. Dashiell* (North Carolina).

1187. **[Anon.] Charles Judson Herrick.** *J. Comp. Neur.*, 1932, 56, 3–8.—A brief biographical account of Herrick which touches upon his life work as teacher, editor, and scientist; it is written as a preface to Part I of the anniversary volumes dedicated to him in commemoration of twenty-five years of service as professor of neurology in the University of Chicago.—*C. P. Stone* (Stanford).

1188. **[Anon.] The International Congresses of Physiology and Psychology.** *Scient. Mo.*, 1932, 35, 471–473.—*J. F. Dashiell* (North Carolina).

1189. **[Anon.] The Ithaca meeting of the American Psychological Association.** *Scient. Mo.*, 1932, 35, 474–475.—*J. F. Dashiell* (North Carolina).

1190. **[Anon.] Rundschau.** (News report.) *Indus. Psychotechn.*, 1932, 9, 255.—The tenth International Congress of Psychology took place in Copenhagen August 22 to 27, 1932. The presidential address was delivered by Rubin, on experimental analysis of perception of time. The next meeting is to be held in Madrid.—*C. Burri* (Chicago).

1191. **Bronk, D. W. Professor Edgar Douglas Adrian.** *Scient. Mo.*, 1932, 35, 570–572.—Adrian was awarded the Nobel prize in medicine and physiology in association with C. S. Sherrington. Portrait.—*J. F. Dashiell* (North Carolina).

1192. **Brown, A. E. Work-book in elementary psychology.** New York: Macmillan, 1932. Pp. iii + 182. $1.25.—The pages of this work-book are detachable and punched for filing in a ringed holder. The major text to which topics refer is Gates' *Elementary Psychology*, revised edition. Other references include Skinner, Gast, and Skinner; Dashiell; and Griffith. There are 45 units, including reviews. They cover such topics as: methods and subject matter; connecting and reacting mechanisms; native equipment, heredity and environment, sensations; emotions; urges; motivation; learning; perception and attention; thinking; intelligence; personality; efficiency; and abnormal psychology. The review sections are units 11, 21, 31, 45.—*O. L. Harvey* (Boston).

1193. **Chase, W. P. A new maze technique.** *J. Gen. Psychol.*, 1932, 7, 485–489.—This light maze was constructed for the purpose of limiting the kinesthetic factors that are ordinarily present.—*H. Cason* (Wisconsin).

1194. **English, H. B. Proceedings of the seventh annual meeting of the Midwestern Psychological Association, May, 1932.** *Psychol. Bull.*, 1932, 29, 569–585.—*J. F. Dashiell* (North Carolina).

1195. **Fulton, J. F. The Nobel prize in physiology and medicine: Sir Charles Scott Sherrington.** *Scient. Mo.*, 1932, 35, 568–569.—An appreciation, with portrait.—*J. F. Dashiell* (North Carolina).

1196. **Harms, E. Die Psychologen und die Psychologie.** (Psychologists and psychology.) *Psychol. Rundschau*, 1932, 4, 157–161.—A resumé of the Tenth International Psychological Congress, which took place in Copenhagen August 22 to 27. One aspect of the meetings was the contrast between the American and the European viewpoints expressed, between the behavioristic school of thought and the Gestalt. A strong note was sounded for the educational aspect of psychology, especially by women contributors. The author reviews in some detail the individual contributions made by European and American psychologists, and comments on the progress the science is making.—*A. B. Herrig* (Michigan Central State Teachers College).

1197. **Husband, R. W. Laboratory manual in experimental psychology.** Ann Arbor: Edwards, 1932. $2.00.—This manual contains instructions for 22 experiments: various visual phenomena; mirror drawing; perception in tachistoscopic exposure; eye movements in reading; tests of musical ability; judgment of art and poetry; simple and complex reaction time; motor speed and coordination; knee jerk; influence of rhythm on bodily sway; mental set and shift; maze learning; the mental maze; whole and part learning; card sorting; transfer of training; influence of meaning on speed of learning; initial and final abilities; free associations; social facilitation; effect of distractions on work; and incidental memory. There are statistical appendices on tabular and graphic methods, means and standard deviations, and correlation. Each experiment is prefaced by several paragraphs describing its general setting and significance. The first paragraph of the introduction states the purpose of the manual thus: "The object of this course is to give you an appreciation of *scientific method*, in particular that used in psychology. As such the greater emphasis will be laid on such features as careful formulation of the fundamental and special problems of research; the various types of apparatus which might be used; techniques or methods used in such study; controls and precautions taken to ensure reliability of results; and methods of interpretation and treatment of results after they are obtained."—*J. A. McGeoch* (Missouri).

1198. **Lombroso, C. Osservazioni sul mondo esterno e sull' io. Diario giovanile (1854–1857).**

(Remarks on the external world and on the ego. Youthful diary, 1854–1857.) *Arch. di antrop. crim.*, 1932, 52, 5–39.—In this youthful writing of Lombroso, medicine is already conceived and foreshadowed in its social expansion and applications, and psychology appears in its association with medicine in the task of interpreting dreams.—*R. E. Schwarz* (V. A. Hospital, Northport, L. I.).

1199. **Louttit, C. M. Handbook of psychological literature.** Bloomington, Ind.: Principia Press, 1932. Pp. viii + 273. $2.00.—A description of the various sources of published information on psychological work. Among other topics are considered journal literature, institutional publications, general works, indexes and abstract journals, and libraries. Appendices give a list of journals, publishers' addresses, special collections, and a bibliography.—*R. R. Willoughby* (Clark).

1200. **Mackay, G. A hand campimeter for the confrontation test.** *Brit. J. Ophth.*, 1932, 16, 750–751.—A description and illustration of a campimeter designed to provide a simple method of measuring the approximate extent of the field of vision. "It affords a means of estimating the field for hand movements with more precision than is possible by a mere guess on the part of the examiner when moving his hand through uncharted air."—*R. J. Beitel, Jr.* (Clark).

1201. **Martin, L. C. An introduction to applied optics. II. Theory and construction of instruments.** New York: Pitman, 1932. Pp. 298. $6.00.—*R. R. Willoughby* (Clark).

1202. **Masson-Oursel, P. La pensée à rebours dans l'Inde antique.** (Regressive thought in ancient India.) *J. de psychol.*, 1932, 29, 585–587.—A discussion of regressive thought in Buddhistic and Yoga philosophy.—*N. L. Munn* (Pittsburgh).

1203. **Morris, C. W. Six theories of mind.** Chicago: Univ. of Chicago Press, 1932. Pp. xi + 357. $4.00.—The major theories of mind are reviewed, assessed, and compared under the categories of mind as substance, mind as process, mind as relation, mind as intentional act, mind as substantive, and mind as function. The result of the discussion by the author indicates a movement in favor of a functionalistic and pragmatic theory of mind which defines mind in terms of the symbolic process.—*E. H. Kemp* (Clark).

1204. **Nickel, A. Internationale Kongress fur Psychologie in Kopenhagen.** (The International Congress for Psychology in Copenhagen.) *Dtsch. Schule*, 1932, 36, 548–550.—Contributions at this congress showed much diversification. The contrast between the American-English and the German viewpoints gave much food for thought. Behaviorism, introspective psychology, Gestalt, psychoanalysis, and child psychology all had their hearing. The contributions of Pavlov, Hunter, Stern, Kierkegaard, Gesell and Bühler deserve mention. The Fifth Scandinavian Congress of Psychiatry met in conjunction with the International Congress, with its emphasis on pathology. Both of these meetings show clearly the emphasis placed today on analysis by various methods of the complete personality.—*A. B. Herrig* (Michigan Central State Teachers College).

1205. **Paterson, D. G. Proceedings of the fortieth annual meeting of the American Psychological Association, Incorporated, Ithaca, New York, September 8, 9, 10, 1932.** *Psychol. Bull.*, 1932, 29, 605–692.—*J. F. Dashiell* (North Carolina).

1206. **Piéron, H. De la VIIe conférence internationale de psychotechnique.** (The seventh international psychotechnical conference.) *J. de psychol.*, 1932, 29, 582–583.—*N. L. Munn* (Pittsburgh).

1207. **Ruyer, R. Un "modèle mécanique" de la conscience.** (A "mechanical model" of consciousness.) *J. de psychol.*, 1932, 29, 550–575.—The author claims that it is absurd to speak of consciousness in terms of a physical pattern. He points out the difficulties inherent in the mechanical envisagement of mental life.—*N. L. Munn* (Pittsburgh).

1208. **Schlosberg, H. A time marker for 120 cycles.** *J. Gen. Psychol.*, 1932, 7, 483–485.—The time marker operates on 60-cycle A. C., and gives a smooth sigmoid curve of 120 cycles per second.—*H. Cason* (Wisconsin).

1209. **Seashore, R. H. Proceedings of the Western Psychological Association, Stanford University, California, June 1932.** *Psychol. Bull.*, 1932, 29, 533–551.—*J. F. Dashiell* (North Carolina).

1210. **Sellars, R. W. The philosophy of physical realism.** New York: Macmillan, 1932. Pp. xiv + 487. $4.00.—This book is a development and defense of physical realism as against idealism. The author accepts the causal theory of sense data, but holds that perceiving is a directed complex act. "We do not first know ideas and then infer objects. Knowing is from the first objective in import and direction. Cognitive ideas are not sense-data but *ideas of*, that is, predicates, meanings, having a categorical setting in an act of cognition." Typical chapter headings are as follows: *Physical Realism and Naturalism; Idealism and Interlude; Levels of Knowing; Knowing a Common World; Facts, Knowledge and Existence; Physics and Ontology; The Ontology of Space and Time; Consciousness and the Brain-Mind.*—*C. H. Graham* (Clark).

1211. **Starr, H. E. Certain phases in the psychology of psychologists.** *Psychol. Clin.*, 1932, 21, 69–76.—The author gives reasons against the formation of a new association of psychologists for the fostering of the application of scientific principles to psychological problems. If psychologists will be truly scientific the existing societies will be found sufficient. Being scientific involves freedom from credulity, especially uncritical adherence to a particular school, dogma, principle, or catch-word; willingness to admit ignorance and to recognize the limits of our knowledge; freedom from the tendency to disparage old writings. Finally, the psychologist should have a healthy scientific skepticism with regard to his own mechanistic, materialistic bias where it exists.—*J. T. Metcalf* (Vermont).

1212. **Travis, R. C. Experimental studies in ocular behavior: I. The Dodge mirror-recorder for photographing eye-movements.** *J. Gen. Psychol.*, 1932, 7, 311–327.—This report is concerned with the adaptation and refinement of methods, technique, and apparatus for a study of eye-movements. The validity and feasibility of the Dodge mirror-recorder as to its practical usefulness in photographically recording fine differences in eye-movements on large numbers of subjects was determined on voluntarily initiated eye-movements. The right eye served as the observing eye, while the conjugate movements of the closed left eye were photographically recorded by the mirror-recorder. The excursions of the beam of light reflected from the mirror-recorder as measured on the photographic record in mm., when plotted against the angular displacement of the eyeball in voluntary refixation of definitely spaced points in the visual field, showed a positive rectilinear relationship. That is, the greater the angular displacement of the eyeball, the greater the excursion of the beam of light on the sensitized paper. This type of relationship was found for all the 113 subjects, although individual variations were evident in the slope of the line of relationship. Some variability was evident in successive refixations for each subject, with the values for the greater portion of the refixations grouped around a central tendency. Likewise, some variability was manifested in successive trials in resetting the mirror-recorder to the closed eyelid for each subject.—*H. Cason* (Wisconsin).

1213. **Uhrbrock, R. S. June Etta Downey.** *Science*, 1932, 76, 585–586.—An obituary.—*C. C. Neet* (Clark).

1214. **Wolff, W. The Tenth International Psychological Congress.** *Character & Personality*, 1932, 1, 152–161.—The Tenth International Congress was attended by some 800 delegates. As before, the vast wealth of papers and communications made it impossible to determine a definite and productive result. It was also impossible to deduce any general state of contemporary psychology. There were notable contributions to the science of psychology but no evidence of homogeneous trends. The old conflict as to whether psychic life is organic, *gestaltlich*, or mechanical was once more crystallized. Germany, France, and Italy rather tended to support the former view and America and Russia the latter. The present article lists most of the papers dealing particularly with problems of personality and gives a brief review of some of the more important ones.—*M. O. Wilson* (Oklahoma).

SENSATION AND PERCEPTION

1215. **Ames, A., Ogle, K. N., & Gliddon, G. H. Corresponding retinal points, the horopter and size and shape of ocular images.** *J. Opt. Soc. Amer.*, 1932, 22, 538–631.—See VII: 424 and 800.—*D. B. Judd* (Bureau of Standards).

1216. **Angyal, A. Osservazioni su alcuni fenomeni di moto apparente.** (Remarks on certain phenomena of apparent motion.) *Arch. ital. di psichol.*, 1932, 10, 25–28.—A description of some phenomena of apparent motion in the well-known illusion which makes it appear that objects seen from a moving train are moving in an opposite direction. External objects, under certain conditions, seem to move in the same direction as the train and lines perpendicular to the wheels seem to move with a rotary motion.—*R. E. Schwarz* (V. A. Hospital, Northport, L. I.).

1217. **Anton, G. Zur Psychologie der Schwerhörigen.** (On the psychology of partial deafness.) *Zsch. f. Psychol.*, 1932, 127, 5–15.—A review of theoretical and practical problems connected with the psychological functioning of the partially deaf.—*R. B. MacLeod* (Cornell).

1218. **Bartels, M. Bemerkungen zur "Augenzitternkunde."** (Remarks concerning "nystagmus.") *Arch. f. Ophth.*, 1931, 127, 358–372.—The author questions Ohm's assumption of an "eye muscle transmitter" (*Augenmuskelsender*) in the vestibular nucleus (Ohm, J. Zur Nystagmus. 24. Mitteilung. *Arch. f. Ophth.*, 1931, 126, 372–408). To be consistent, an arm, leg, back and pelvis muscle innervator (*Muskelsender*) should also be assumed in this nucleus, inasmuch as the tonus of these muscles as well as of the eye muscles is greatly influenced by vestibular innervations and light stimuli. It is more probable that the eye muscle center lies not in the vestibular nucleus but outside it and that vestibular innervations flow to it.—*J. L. Jervis* (Yale).

1219. **Bayer, L. Ueber weitere Untersuchungen an farbigen Nachbildern und über die Merklichkeit der Fovea centralis im Nachbild.** (Further investigations of colored after-images and the noticeability of the fovea centralis in after-images.) *Zsch. f. Sinnesphysiol.*, 1932, 63, 213–214.—The demonstration that after-image excitation persists even after the after-image has already appeared suggests that the arousal of after-images is to be referred not to an after-excitation of the retinal elements but to a process in the central nervous system.—*R. B. MacLeod* (Cornell).

1220. **Bayer, L. Untersuchungen über das farbige Abklingen der Nachbilder mit einem Beitrag zur Theorie des Licht- und Farbensinnes.** (Investigations of the recession in color of after-images, and a contribution to the theory of the light and color sense.) *Zsch. f. Sinnesphysiol.*, 1932, 63, 197–212.—The flight of colors, following upon the fixation of a luminous white surface with dark-adapted eye, was studied, and a constant succession of colors covering the whole range of the psychological spectrum established. It is argued that the sensation of white (not to be confused with peripheral white excitation) is based on a complex process, separate components of which are subjected to different degrees of inhibition.—*R. B. MacLeod* (Cornell).

1221. **Bietti, G. L'azione specifica fisiologica e patologica sull' occhio dei raggi componenti lo spettro.** (The specific physiological and pathological

action on the eye of the spectral rays.) *L'illuminazione razionale*, 1931, No. 10, 187–190.—*R. Calabresi* (Rome).

1222. **Bürklen, K. Touch reading of the blind.** (Trans. by F. K. Merry.) New York: American Foundation for the Blind, 1932. Pp. xi + 81. $2.00.—This edition, an English translation from the German of 1917, is limited to 300 copies. Part I outlines the history of writing for the blind; describes braille writing; indicates the suitability of raised type for touch reading; describes the process of touch reading and measures its speed; investigates the legibility of braille characters; and attempts to sketch touch movements. A special chapter deals with 8 experiments: What are the touch movements of one reading finger in reading single characters, and in reading words and sentences? Which fingers possess the ability to read? Which reads the best? Which of the index and middle fingers has the most difficulty in reading? Which fingers are generally used in reading? What are the movements in reading single characters and words in a sentence by means of two fingers? What changes take place in pressure strength and in tactual ability during touch reading? What is the speed of touch reading? The last three chapters offer proposals for increasing the speed of touch reading, and summarize the experimental findings. A bibliography is appended. Part II consists of an article by P. Grasemann on an investigation on the reading of the blind; another by L. Cohn on an introspective study of the psychology of the blind; and another on the blind as personalities by W. Steinberg.—*O. L. Harvey* (Boston).

1223. **Burridge, W. A new physiology of sensation based on a study of cardiac action.** New York: Oxford, 1932. Pp. 76. $1.50.—*R. R. Willoughby* (Clark).

1224. **Cibrario, M. Andamento dell' errore nella illusione di Poggendorff.** (Course of the error in Poggendorff's illusion.) *Arch. ital. di psichol.*, 1932, 10, 57–59.—An analysis of the formula which expresses the course followed by the error made in the Poggendorff illusion, on the hypothesis that the angle of wrong estimate remains constant with the variation of the distance between the parallel lines and of the angle formed by the transversal with the parallel lines.—*R. E. Schwarz* (V. A. Hospital, Northport, L. I.).

1225. **Dei, P. Educazione dell' udito e della vista nei sordi adulti.** (Education of hearing and vision in deaf adults.) *Boll. d. malatt. d. orecchio, d. lola, d. naso*, 1932, No. 3, 81–85.—The author reviews the educational methods used: electrophonoids, acousticons, ear-trumpets, phonographs, and auricular exercises given aloud.—*R. Calabresi* (Rome).

1226. **Dimmick, F. L. The positive after-image of twilight vision.** *J. Gen. Psychol.*, 1932, 7, 472–479.—In attempting to observe Swindle's positive after-image of long duration (*Amer. J. Psychol.*, 1916, 27, 324–334), Dimmick came upon a variation of conditions that gave an after-image different from that reported by Swindle. It depended upon dark-adaptation and upon the brief exposure of a stimulus of fairly high intensity, but it did not reproduce the color of the stimulus object.—*H. Cason* (Wisconsin).

1227. **Ferree, C. E., & Rand, G. A method of greatly increasing sensitivity to color contrast.** *J. Gen. Psychol.*, 1932, 7, 466–472.—The method described can be used to increase the contrast where it is faint, to bring latent contrast above the threshold, and to show that contrast exists where it had not been previously known to exist.—*H. Cason* (Wisconsin).

1228. **Ferreri, —. Taubstummheit: Notwendigkeit der Zusammenarbeit zwischen Facharzt und Taubstummenerzieher.** (Deaf-mutism: the necessity for cooperation between the medical practitioner and the teacher of deaf-mutes.) *Monatssch. f. Ohrenhk.*, 1932, 66, 816–817.—This report from the Fifth Congress for Logopedia and Phoniatria, held in Vienna in July, 1932, summarizes the principles for cooperation between physicians and teachers of deaf-mutes. It deplores the insufficient activity of school physicians and teachers in institutions for the deaf, and recommends prompt placement of deaf children in special schools, and medico-educational treatment in the pre-school age. Efficient cooperation demands scientific accuracy on the part of the physician; willingness of the parents to give information; a thorough physical and mental examination; and appropriate medical treatment. A new grouping of deaf-mutes should be made in relation to (1) total deafness which has prevented learning of speech in early childhood; and (2) partial deafness which permits training for acoustic attention. Although the etiology of the varieties of deaf-mutism is still uncertain, a practical classification may be based on the degree of deafness and the mental abnormality of the child who hears but does not speak. Hearing exercises must be undertaken in every case of deaf-mutism in which any hearing remains. In regard to voice and speech disturbances in children of normal and abnormal mentality, a sharp distinction should be made between those of organic and those of neurotic origin. Stuttering demands, first of all, a careful etiological diagnosis by a neurologist and psychiatrist. The treatment of stuttering is the task of the modern teacher of deaf-mutes, but the nose-and-throat condition is the responsibility of the doctor. The lack of cooperation among teachers of speech and voice training and their insufficient preparation is the chief cause of empiricism and charlatanism in the treatment of speech disturbances. —*M. E. Morse* (Hyattsville, Md.).

1229. **Gallerani, G. Fenomeni apparenti di contrasto simultaneo.** (Apparent phenomena of simultaneous contrast.) *Ann. di oftal. e clin. ocul.*, 1932, Nos. 9–10, 804–809.—The author explains in physiological terms the phenomenon observed when one looks at the intersection points in a network of lines: only the point which is projected into the fovea is seen perfectly, the other points being more or less gray.—*R. Calabresi* (Rome).

1230. **Gatti, A. L'illusione di Poggendorff e il principio del minimo mezzo.** (The Poggendorff illusion and the principle of least means.) *Arch. ital. di psichol.*, 1932, 10, 29–56.—A demonstration of the relation between Poggendorff's illusion and the principle of least means, elaborated in the psychological field. This illusion, according to the author, represents the least means for perceiving all the properties of the complex in which it appears. The apparent prolongation assumes the character of the geometric prolongation, because the angle formed by it with the line joining it to the transversal, of which it seems to be the prolongation, is not perceived. This angle is independent, between 20° and 80° of the slope of the transversals. The author gives the formula for the variation in the error made in the apparent construction of the prolongation of the transversals, and proves his assertions by means of the results obtained by Burmester and by himself, experimenting on himself and another subject.—*R. E. Schwarz* (V. A. Hospital, Northport, L. I.).

1231. **Gelb, A. Die Erscheinungen des simultanen Kontrastes und der Eindruck der Feldbeleuchtung.** (The phenomena of simultaneous contrast and the impression of field illumination.) *Zsch. f. Psychol.*, 1932, 127, 42–59.—Brightness contrast induction by physically equivalent but phenomenally different fields was studied by means of a modification of the Hering "hole method." The two infields were physically equivalent gray "hole" colors, and the respective circumfields were white in reduced illumination and black in full illumination, which retained their proper colors in keeping with the principle of color constancy. When observation was from a distance of 6–7 m. the two infields were seen as the same. When the distance was reduced the gray against the phenomenally white field appeared brighter than the gray against the phenomenally dark field. This is explained as the result of illumination contrast, the phenomenally darker space enveloping the white field causing an enhancement of the brightness of the gray infield, and vice versa. Field illumination as a phenomenal factor is regarded as of primary importance in the explanation of color constancy effects and of depth contrast.—*R. B. MacLeod* (Cornell).

1232. **Gerts, H. Echelle d'acuité visuelle, à exposition monoculaire.** (Visual acuity scale in monocular exposure.) *Acta Ophth.*, 1932, 10, 564–567.—An apparatus is described for examining the visual acuity of each eye separately without getting abnormal accommodation. This is made possible by presenting the examination material in such a manner that it is the only significant part of the environment not visible to both eyes.—*M. B. Mitchell* (George School, Pa.).

1233. **Granström, K. O. Studien über einseitige, hochgradige Myopie.** (Studies of unilateral, extreme myopia.) *Acta Ophth.*, 1932, 10, 348–365.—The author reports a careful investigation of 50 cases of unilateral extreme myopia (at least 5 diopters). The retinal curvatures of the myopic and non-myopic eyes are as a rule about the same. A greater astigmatism than the normally occurring physiological astigmatism occurs in the myopic eye more frequently than in the non-myopic eye. The intraocular pressure is in general about the same in both eyes. Maculae corneae occur more often in the myopic eye. Whether these maculae cause or only accompany myopia could not be decided. Strabismus divergens is observed rather often in the myopic eye. —*E. H. Kemp* (Clark).

1234. **Guillaume, P. A propos d'une explication psychologique.** (On a psychological explanation.) *J. de psychol.*, 1932, 29, 657–672.—A reply to a previous article by Deshayes concerning the explanation of a number of familiar illusions. The author believes that physiological explanations are premature. Six figures.—*N. L. Munn* (Pittsburgh).

1235. **Heinrich, W. Sur la disparition périodique des sensations de faible intensité.** (Concerning the periodic disappearance of sensations of feeble intensity.) *J. de psychol.*, 1932, 29, 576–580.—A resumé of researches on periodic fluctuations in the various sense modalities from the University of Cracow.—*N. L. Munn* (Pittsburgh).

1236. **Heiser, P. Stimulus temperature and thermal sensation.** *Arch. of Psychol.*, 1932, No. 138. Pp. 81.—An apparatus was designed and constructed permitting the control of many of the factors of temperature stimulation, such as stimulus temperature, pressure, duration, size, and time interval, factors of skin condition and location, the attention of the subjects, and room temperature. In the experiment the stimulus temperature was systematically varied, and the point of stimulation was also varied so as to cover selected areas of the forehead in 33 subjects. Each spot had two applications of the same temperature at a time interval of about 25 seconds. The correlation between the first and second measure of sensitivity of the areas taken as wholes was about .98. In general the number of temperature responses within an area of skin increases with stimulus temperature. In many cases a rise of 4° in the stimulus temperature changed the response from mere touch to heat. While the results afford no definite evidence against the generally accepted punctate distribution of temperature receptors, they would be consistent with a non-punctate distribution. The question should be open until further evidence is available.—*E. M. Achilles* (Columbia).

1237. **Körösi, A. Die Untersuchungsergebnisse mit den Muckschen Adrenalin-Sondenversuch an Taubstummen.** (The results of Muck's adrenalin sound test in deaf-mutes.) *Monatssch. f. Ohrenhk.*, 1932, 66, 942–952.—This test consists essentially in spraying the inferior turbinate with adrenalin solution until the mucosa is white, and then stroking it with a sound. If the result is positive, the area becomes red for a moment and then remains white while the surrounding mucosa gradually turns red. This pathological reflex denotes hypertonia of the sympathetic system of the head and neck. It is positive in head injuries causing permanent injury to the

pia, tumors involving the cortex, Ménière's syndrome, and epilepsy. Körösi examined 116 deaf-mute children by this method, and believes that it has great value in the etiological classification of the condition. The test was positive in all cases in which there was a history of trauma to the head, meningitis, or cerebral hemorrhage. It was negative in cases of deaf-mutism following acute infectious diseases, acquired affections of the inner ear, and in heredito-degenerative cases without trauma. The unexpectedly positive results amounted to 2.5%.—*M. E. Morse* (Hyattsville, Md.).

1238. **Livingston, P. C. The study of sun glare in Iraq.** *Brit. J. Ophth.*, 1932, **16**, 577–625.—The author (squadron-leader, R.A.F.M.S.) presents the results of a study upon 129 cases. General classification: indoor and outdoor workers. Monthly observations for a period of 15 months (two summer, one winter season). Part I (introduction): analysis of solar spectrum and the influence of its component parts upon the eyes; influence of local conditions upon sun glare; the varying exposure of workers in different trades to sun glare; consideration of glare as it concerns those engaged in aviation. Part II (experimental investigation): discussion of tests employed and technique followed (acuity, oculomotor function, fusion, light sense, visual fields, pulse variations, diet factors, smoking, eye color, and other details). Part III: graphs, tables, calculations; interpretations of results and the general conclusions: (1) ocular fatigue effects of glare can be fully demonstrated in varying degree; (2) pulse rate is greater in summer, but remains within normal limits; (3) a condition of mental inertia is demonstrable in many instances; (4) fatigue of accommodation and convergence is almost universal; (5) reduced light sense and threshold is exceedingly common; (6) changes in the visual fields take place in many instances and show considerable variations; (7) visible ophthalmoscopic changes do not occur through reflected desert sunlight; (8) eye color is unimportant as a method of deducing glare susceptibility; (9) the careful use of anti-glare spectacles offers a valuable and proved means of ocular protection; (10) pilots appear to suffer more from deterioration of light sense, drivers of motor transport tend to suffer more from fatigue of accommodation and convergence, and members of the clerical staff show tendency to ocular muscle weakness and weak binocular fusion. Part IV: symptoms and clinical signs of sun glare (photophobia dolorosa tropicalis); prophylaxis and treatment; illustrative cases.—*R. J. Beitel* (Clark).

1239. **Mendoza, R. La visión estereoscópica del espacio es distinta de la visión estereoscópica del bulto.** (Stereoscopical perception of space is different from stereoscopical perception of relief.) *Rev. oto-neuro-oftal.*, 1932, **7**, 320–330.—The author suggests that while binocular parallax is responsible for accurate space or distance perception, the perception of mass or relief is mediated by the single eye.—*J. W. Nagge* (Chicago).

1240. **Ohm, J. Zur Augenzitternkunde. 23. Mitteilung. Zum 2000. Fall von Augenzittern der Bergleute. 2. Teil.** (Concerning nystagmus. 23rd contribution. 2000 cases of miner's nystagmus. Part 2.) *Arch. f. Ophth.*, 1931, **126**, 221–255.—The author concludes from his researches on nystagmus that the innervations for counter eye movements meet not in the eye-muscle nucleus, but higher up in the "eye muscle transmitter" (*Augenmuskelsender*) which he places in the region of the vestibular nucleus. All causes of nystagmus have this in common: they disturb or destroy the equilibrium of the vestibular apparatus. The entire stretch of vestibular nerve from the periphery to the nuclear area produces jerking nystagmus in response to all possible stimuli. The whole region of the visual pathway from the retina to the visual cortex is not nystagmus-producing in the sense that no mechanical or electrical stimulus or disease may be its cause. Here only one stimulus can cause nystagmus, viz., the rotation of the visual field at a certain speed.—*J. L. Jervis* (Yale).

1241. **Ohm, J. Zur Augenzitternkunde. 24. Mitteilung. 2. Teil. (Kritisches, Schluss.)** (Concerning nystagmus. 24th contribution. Part 2. Critical, conclusion.) *Arch. f. Ophth.*, 1931, **126**, 372–408.—The author assumes a "nystagmus center" in the vestibular nucleus. This is the real eye-muscle innervator (*Augenmuskelsender*). It receives optical, vestibular, sensory, voluntary and possibly other stimuli. Under certain conditions its excitability may be so altered as to cause nervous discharges in the form of oscillating or jerking nystagmus. It also possesses a certain degree of independence, and for this reason nystagmus does not immediately cease with severing of the optic nerve or removal of the visual cortex. Occupational nystagmus (miner's nystagmus) may be controlled sometimes by light treatments. Hyperexcitability of this conductor (*Sender*) may also be controlled to a certain degree by voluntary effort. In performing brain experiments one must remember that dark nystagmus (*Dunkelnystagmus*) may continue after cutting all optical, vestibular and voluntary pathways and centers if the real innervator (*Sender*) or even a portion thereof still functions and is in connection with the eye muscles.—*J. L. Jervis* (Yale).

1242. **Ohm, J. Zur Augenzitternkunde. 26. Mitteilung. Über den Einfluss zentraler und parazentraler Blenden auf den optokinetischen Nystagmus.** (Concerning nystagmus. 26th contribution. On the effect of central and paracentral screens on optokinetic nystagmus.) *Arch. f. Ophth.*, 1931, **127**, 373–394.—Small screens or blinds placed before a revolving drum and rigidly fixated will check optokinetic nystagmus normally caused by the drum rotation. This cessation of optokinetic nystagmus upon constant fixation of the screens would indicate that the fovea plays an important part in keeping the eyes stationary.—*J. L. Jervis* (Yale).

1243. **Pohlman, A. G. Neue Betrachtungen über den Mechanismus des Gehörorgans.** (New consid-

erations on the mechanism of hearing.) *Monatssch. f. Ohrenhk.*, 1932, **66**, 1025–1057.—The author gives an exhaustive critical analysis of the problem and puts forth a new explanation of the mechanism of hearing, based primarily on embryological and comparative anatomical considerations. His "proposed mechanics" is as follows: The auditory cells react directly to the vibrations of the liquid in which they lie, and the function of the middle-ear apparatus is to transmit the air vibrations to the fluid, thus overcoming the acoustic isolation. The morphology, which hitherto has been explained on the ground of sound analysis and sound conduction, can much better be brought into connection with the embryological picture by the postulation of a shock-absorbing function of the middle and inner ear. If this explanation is correct, the confusion in the interpretation of the auditory mechanism is due to false hypotheses and unjustified correlations. Undoubtedly, improved methods of examination will lead to advances in definite directions, and perhaps when the physics of the auditory apparatus is definitely determined, it will be possible to give a better explanation. An extensive bibliography is appended.—*M. E. Morse* (Hyattsville, Md.).

1244. **Schumann, F. Die Lokalisierung bei Blickbewegungen.** (Localization during shifts in fixation.) *Zsch. f. Psychol.*, 1932, **127**, 113–128.—The problem of the constancy of visual position in spite of the shifting of retinal excitation as a result of eye movement is discussed in connection with the general problem of the structuring of a continuous and clearly organized visual space from discrete perceptions. Experiments are described, from which the inference is drawn that the fixity of objects in visual space is due primarily, although perhaps not altogether, to the rapid and jerky character of eye movement. When fixation is upon a slowly moving object, apparent movement is observed in the surroundings.—*R. B. MacLeod* (Cornell).

1245. **Skinner, B. F. A paradoxical color effect.** *J. Gen. Psychol.*, 1932, **7**, 481–482.—The effect is obtained by looking at a large number of white disks crowded together on a black background, the figure being under low white-light illumination.—*H. Cason* (Wisconsin).

1246. **Swenson, H. A. The relative influence of accommodation and convergence in the judgment of distance.** *J. Gen. Psychol.*, 1932, **7**, 360–380.—Using a new form of stereoscope designed and constructed under the direction of Harvey Carr, a quantitative study was made of the relative influence of accommodation and convergence in the judgment of distance. Both accommodation and convergence were effective in all of the judgments. Within the limits of the experiment, convergence was found to be about three times as effective as accommodation in the judgment of distance. There was no conclusive evidence that the relative effectiveness of convergence and accommodation varied with the five individuals used as subjects. The relative effectiveness of the two factors varied with the degree of dissociation; when widely dissociated there seemed to be a tendency to ignore accommodatory cues and place more reliance upon those of convergence.—*H. Cason* (Wisconsin).

1247. **Vannas, M. Über die Einwirkung der Miotika und Mydriatika in experimenteller Aniridie. Ein Beitrag zur Frage: Iris, Pupillenbewegung und Augendruck.** (The influence of miosis and mydriasis in experimental aniridia. A contribution to the question of iris, pupillary movement and eye pressure.) *Acta Ophth.*, 1932, **10**, 588–602.—A history of the problem is given indicating contradictory viewpoints; some have claimed that eye pressures were dependent upon iris and pupillary movements, and some that they were independent of these movements. Iridectomy was successfully performed upon the right eyes of two rabbits. This was followed by a decrease in eye pressure. Homatropin and atropin, however, caused an increase in eye pressure, even in these eyes without any iris. It was concluded, therefore, that pupillary play and movement of the iris were not necessary for variations in eye pressure. Bibliography.—*M. B. Mitchell* (George School, Pa.).

1248. **Werner, H. Geschichte des Taubstummenproblems bis ins 17. Jahrhundert.** (History of the deaf-mute problem up to the seventeenth century.) Jena: Fischer, 1932. Pp. 275. M. 12.—In this thorough research, the author gives an exhaustive description of the anatomical ideas and theories concerning hearing, as well as the philosophies of speech in the early days of the care of deaf-mutes. The primitive beginnings of instruction for this class were made in Spain by Pedro Ponce, Pablo Bonet, and Ramirez de Carrion, whose lives and works the author describes sympathetically from a study of the original sources. This book is a valuable contribution to the study of this neglected field.—*M. E. Morse* (Hyattsville, Md.).

[See also abstracts 1200, 1201, 1212, 1257, 1265, 1269, 1270, 1273, 1281, 1291, 1312, 1333, 1336, 1341, 1343, 1396, 1441, 1512, 1513, 1523, 1552, 1566.]

FEELING AND EMOTION

1249. **Chalisov, M. A., & Molukalo, L. P. [Biochemical blood changes in emotional states.]** *Papers of the Institute of Professional Diseases, Leningrad Medgiz. V. V. Physiological Laboratory*, 1931. Pp. 90–91.—Psychoneurotics as well as sane artists show a blood change in emotional states. There is a decrease and increase in catalase and quantity of sugar, the increase of sugar being more frequent. The curves of sugar and catalase are parallel.—*A. Yarmolenko* (Leningrad).

1250. **D'Agostino, V. Il termine "emozione" e i suoi corrispondenti latini. Nota lessicale.** (The term "emotion" and its Latin correspondents. A lexicographical note.) *Arch. ital. di psichol.*, 1932, **10**, 3–13.—Underlying the majority of the Latin expressions given as equivalents of the noun *emotion*

is the idea of sudden and violent motion which alters the normal state of consciousness. The words corresponding to the concept emotion are numerous in the classical period; but not until the subsequent period does the term *emotio* arise. In relation to the terminology used by the classic and post-classic writers, one can also study the artistic expression of such stirrings of the soul and especially the so-called "language of the emotions."—*R. E. Schwarz* (V. A. Hospital, Northport, L. I.).

1251. **Farnsworth, P. R. Preferences for rectangles.** *J. Gen. Psychol.*, 1932, 7, 479–481.—Preferences for rectangles depend upon a large number of factors.—*H. Cason* (Wisconsin).

1252. **Wyatt, H. G. The art of feeling.** Boston: Houghton Mifflin, 1932. Pp. x + 293. $2.50.—To make the best of one's emotions it is necessary to understand their interplay with imaging, thinking and willing. This book treats these questions both theoretically and practically, applying them to human pursuits. The argument relies upon the ordinary conscious experiences of the normal reader, but with the authority of academic psychology. There are 5 parts: feeling and imaging; feeling and thinking; feeling and happiness; emotion and character; our emotional future. Three common sources of human misery are sex starvation, social starvation, self starvation. It is the business of education and of society to provide these three satisfactions for the individual. The ethical awareness of "ought" is not impulsive, but imperative. Self-respect is a gradual achievement based on the feeling of "ought." Our emotional future depends upon more among us living more intellectually and more intelligently. There are three conditions for realizing this future. The material means must be made generally available; the individual ability to use them must be generally cultivated; and so must the will.—*M. P. Montgomery* (Faribault, Minn.).

[See also abstracts 1429, 1438, 1463, 1584.]

ATTENTION, MEMORY AND THOUGHT

1253. **Burtt, H. E. An experimental study of early childhood memory.** *J. Genet. Psychol.*, 1932, 40, 287–295.—Meaningless material (20-line selections of Greek drama) was read aloud to the subject daily, beginning at the age of 15 months. Every three months a different set of similar selections was used; and this procedure was continued until the age of 3 years. At the age of 8½ years, the subject learned this original material by a modified prompting method and learned other similar material *de novo*. Whereas the new material required on the average 435 repetitions per selection, the material which had been presented in infancy and early childhood required 317. The original selections which had been presented later in childhood were learned more rapidly than those presented earlier, but even the latter showed facilitation in subsequent learning.—*J. F. Dashiell* (North Carolina).

1254. **Claparède, E. La découverte de l'hypothèse.** (The discovery of the hypothesis.) *J. de psychol.*, 1932, 29, 648–656.—A discussion of the psychological processes involved in the formulation of hypotheses.—*N. L. Munn* (Pittsburgh).

1255. **Grant, M. E. Some theories and experiments in the field of memory.** *J. Educ. Psychol.*, 1932, 23, 511–527.—After a brief review of five theories of memory it is concluded that "memory must have a physiological basis, that the registration and reproduction of experiences are to be looked upon as dependent largely upon the degree of organization present in the perceptual field and its relation to the organism at the time, and that forgetting is a somewhat selective process" depending on disuse, fatigue, accentuating and leveling. The Detroit Advanced Intelligence Test and 10 memory tests are given to large populations of college students. There is a positive correlation between intelligence and retention, a slight negative correlation between intelligence and inaccuracy, significant positive correlation between learning and retention, and a varying degree of correlation between the different memory tests.—*J. A. McGeoch* (Missouri).

1256. **Gray, J. S. A biological view of behavior modification.** *J. Educ. Psychol.*, 1932, 23, 611–620.—Statements are quoted in support of the claim that both psychologists and biologists accept the view that organic behavior is determined by the structure of the organism. Biology shows "that a human organism undergoes structural alteration as determined by the behavior which he is stimulated to perform. This structural alteration consequently determines subsequent behavior. The implication is that learning to behave in a certain way is brought about only by behaving in that particular way. Thus the school should stimulate the child to behave today in the way he should behave in the future."—*J. A. McGeoch* (Missouri).

1257. **Haber, A. Beachtung-Aufmerksamkeit-Reaktion in einem grösseren Sehfeld.** (Observation-attention-reaction in an enlarged visual field.) *Indus. Psychotechn.*, 1932, 9, 229–245.—In order to measure attention and reaction time for an enlarged and complex visual field the author tested the visual reactions of 20 subjects, when the stimuli consisted of various numbers and combinations of lights on a more or less complex background. Eight different combinations of lights were used and the length of time for perceiving a given combination of lights and the speed of reaction were measured. The results of a series of experiments indicated that the process of attention may be divided into two aspects: (1) the process of sensing and perceiving a given stimulus, and (2) the process of giving a proper response. For a relatively large and complex visual field instantaneous attention is impossible; in perceiving a series of objects there occur gaps during which nothing is observed. The size of these influences the effectiveness of attention, or the "attentive factor." The "attentive factor" is a constant, but it is dependent on the strength of the stimulus, the duration

of its exposure, and the extent of external disturbance. A simple hand reaction to be given after the perception of the details (combinations of three to eight lamps) has a delay time which is longer than that from the sum of the simple reactions when these same stimuli are presented singly. The attention time and the reaction time remain constant when one kind of response is required, even though different stimuli occur. But when for different stimuli, different responses must be given, then both the attention and the reaction times vary. The greater the possibility for choice of response the greater the increase in the attention and reaction times. Therefore, in order to obtain great speed of attention the response must be simple and without possibility of variation. If complex responses are not avoidable, or if they should be preferred, then the single responses should be natural ones.—*C. Burri* (Chicago).

1258. **Kowalski, W. Z badań nad wyćwiczalnością (o korelacji wyniku pierwotnego ze skutkiem ćwiczenia absolutnym i stosunkowym).** (A contribution to the study of learning ability; on the correlation between initial results and further results taken either relatively or absolutely.) *Kwart. psychol.*, 1932, 3, 447–458.—A confirmation of the hypothesis of Peters that the negative correlation between the first observed results of training and subsequent results, taken either relatively or absolutely, is a statistical rather than a psychological law.—*T. M. Abel* (Sarah Lawrence).

1259. **Manya, J. Psicologia de l'atenció.** (Psychology of attention.) *Criterion*, 1932, 8, 113–128.—*J. W. Nagge* (Chicago).

1260. **Petran, L. A. An experimental comparison of adverb-verb and verb-adverb controlled association reaction times.** *J. Gen. Psychol.*, 1932, 7, 381–404.—In Experiment I, in which 8 reactors gave adverb responses to 35 dissyllabic verbs and verb responses to 35 dissyllabic adverbs each day for ten days, the adverb-verb reaction was found to be quicker in 65% of the cases. In Experiment II, in which 8 reactors gave adverb responses to 35 dissyllabic verbs and verb responses to 35 trisyllabic adverbs each day for ten days, the adverb-verb reaction was found to be quicker in a slight majority of cases (55%). The averages of the adverb-verb times were smaller than the averages of the verb-adverb times more often in the earlier days of the experiments than in the later. No important differences were found between the number of repeated verb responses to adverb stimuli and the number of repeated adverb responses to verb stimuli. The usual word order of the reactors as indicated by their sentences was verb-adverb, whether or not intervening words were considered. The averages of association reaction times from the stimulus list given first were smaller from 60 to 70% of the time than those from the stimulus list given second.—*H. Cason* (Wisconsin).

1261. **Prusenko, G. Do pitannya pro doslid povozhdennya osobi za elementami ii movi.** (Type of behavior as indicated by elements of speech.) *Trudi ukr. nevr. instit.*, 1931, 15, 52–57.—The author maintains that the type of words found in the free associations is indicative of the general behavior type of the subject.—*E. Hanfmann* (Worcester State Hospital).

1262. **Störring, G. Psychologie komplexerer hypothetischer Schlüsse unter heuristischer Verwertung für die Logik.** (The heuristic value in logic of the psychology of the more complex hypothetical inferences.) *Zsch. f. Psychol.*, 1932, 127, 129–137.—Four examples of inference are subjected to psychological analysis, in order to show how the psychology of purely hypothetical inferences with contradictory consequence or effect can be of heuristic significance for the logic of these inferences.—*R. B. MacLeod* (Cornell).

1263. **Stroud, J. B., & Ridgeway, C. W. The relative efficiency of the whole, part and progressive part methods when trials are massed—a minor experiment.** *J. Educ. Psychol.*, 1932, 23, 632–634.—The whole method is found to be less economical than either of the part methods for learning poetry under massed practice. Trials give more statistically reliable results than does time. There is little difference between the three methods in terms of relearning scores.—*J. A. McGeoch* (Missouri).

1264. **Trowbridge, M. H., & Cason, H. An experimental study of Thorndike's theory of learning.** *J. Gen. Psychol.*, 1932, 7, 245–260.—The present experiment was designed to test the validity of some of the conclusions which Thorndike drew from a preliminary study of improvement in line-drawing. The S was blindfolded, and when E gave the signal, S attempted to draw a 3-inch line directly to the right with his right hand. The four different procedures that were used with different S's were as follows: (1) "blank" procedure—E did not say anything after S attempted to draw a line 3 inches long; (2) "nonsense" procedure—E spoke a different nonsense syllable after S drew each line; (3) "right-wrong" procedure—E said "right" if the S's line was within 1/8 inch of a 3-inch line, and in all other cases he said "wrong"; (4) "correct" procedure—E told S the length of the line he had drawn just after he finished drawing it. The order of efficiency for the four different procedures was "correct," "right-wrong," "blank," and "nonsense," and the superiority of the "correct" procedure over all of the others was quite marked. In the "nonsense," "blank," and "right-wrong" procedures the S's frequently did not know what they were doing a large proportion of the time. The principal difference between these three procedures and the "correct" procedure was that in the "correct" procedure the S's were in a position to make the appropriate changes and adjustments on later trials. Four-fifths of the S's used cues of one sort or another, and their verbalizations had a direct influence on the efficiency of their performance. The results obtained show that improvement in the line-drawing function is not particularly dependent upon the satisfying and annoying "effects" of E's speaking the words "right"

and "wrong." Improvement in this and similar activities is principally conditioned by the kind and the amount of information which the S receives in regard to a function in which no one could be expected to be particularly proficient without previous instruction.—*H. Cason* (Wisconsin).

1265. **Wachtel, J. Obrazy ejdetcyzne i następcze w przestrzeni zwierciadlanej. Doniesienie tymczasowe.** (Eidetic images and after-images in mirrored space. A preliminary note.) *Kwart. psychol.*, 1932, 3, 439–446.—A group of 40 school children, of eidetic and non-eidetic imagery types, were exposed to different types of stimuli (letters, digits, black and white or colored pictures, and geometric forms). The children were then asked to project their eidetic or after-images on the reflection of a screen in a concave mirror. 17 subjects had after-images that were deformed in the manner to be expected for objects perceived in a concave mirror, i.e., circles appeared elliptical, straight lines curved.—*T. M. Abel* (Sarah Lawrence).

1266. **Wherry, R. J. The curve of forgetting: its statistical application.** *J. Educ. Psychol.*, 1932, 23, 621–624.—Primarily for pedagogical purposes, the following equation of the Ebbinghaus curve of forgetting is given:

$$\frac{R}{F} = \frac{k}{\log \frac{T(10)}{T_1}},$$

in which R is what is retained, F is what is forgotten, and T is elapsed time. The equation is found to fit fairly well data from Ebbinghaus and from Henderson.—*J. A. McGeoch* (Missouri).

[See also abstracts 1235, 1320, 1371, 1372, 1431, 1584.]

NERVOUS SYSTEM

1267. **Adrian, E. D. The mechanism of nervous action.** Philadelphia: Univ. of Pennsylvania Press, 1932. Pp. x + 103. $2.00.—These are the Eldridge Reeves Johnson Foundation Lectures for 1931. They constitute a summary presentation of the work of the author and his students on the electrical study of nerve action. The chapter headings are: *The Development of Electrophysiology, The Action of the Sense Organs, Pain, Discharges in Motor Nerve Fibres,* and *The Activity of Nerve Cells.* There is a five-page bibliography.—*R. R. Willoughby* (Clark).

1268. **Baldi, —. Revisione critica e ricerche riguardanti la struttura delle fibre nervose mieliniz-zate.** (A critical revision and studies on the structure of the myelinated nerve fibers.) *Riv. oto-neuro-oftal.*, 1931, No. 4, 561.—According to the author, most of the structural aspects described from this point of view are artificial. When physical methods are used and the nerve fibers are viewed as they actually exist, their fundamental constitution seems to be a much simpler matter than is ordinarily supposed.—*R. Calabresi* (Rome).

1269. **Bartley, S. H. Action potentials of the optic cortex under the influence of strychnine.** *Amer. J. Physiol.*, 1933, 103, 203–212.—Strychnine, when sparingly applied to 2–4 sq. mm. of the rabbit's optic cortex, reduces the oscillograph records of the spontaneous activity of large portions of the cortex to almost nothing. The reduction of the record of spontaneous activity under strychnine does not indicate true cessation of activity, but rather a complete asynchronism of responses of separate elements, so that their effects counterbalance each other in the record.—*C. Landis* (N. Y. Psychiatric Institute).

1270. **Bartley, S. H., & Bishop, G. H. The cortical response to stimulation of the optic nerve in the rabbit.** *Amer. J. Physiol.*, 1933, 103, 159–172.—The cortical response to stimulation of the optic nerve can be observed rising above the continuous spontaneous activity recorded from the cortex. This rise consists typically of a series of five major components occurring approximately at one-fifth second intervals. An analysis of the first component shows it to be composed of two waves, superimposed in the usual record. What these responses may mean in terms of vision can not be stated at present.—*C. Landis* (N. Y. Psychiatric Institute).

1271. **Bartley, S. H., & Bishop, G. H. Factors determining the form of the electrical response from the optic cortex of the rabbit.** *Amer. J. Physiol.*, 1933, 103, 173–184.—That the electrical responses of the cortex are due for the most part to activity of cells as well as fibers is shown by the tying off of the blood supply of the electrode area, with a consequent loss of electrical response. Anesthetics depress the activity of the cortex about parallel to the depression of reflex function. The actual potentials recorded are judged to be those of cells or their specialized processes rather than those of nerve axons. The form of the potential records indicates that the reacting elements are directed perpendicularly to the cortical surface, that the impulse passes over them from below toward the surface, and that certain of them at least are situated close to the surface of the brain.—*C. Landis* (N. Y. Psychiatric Institute).

1272. **Berkson, J., Baldes, E. J., & Alvarez, W. C. "Action currents" without rhythmic contractions and rhythmic contractions without "action currents."** *Proc. Soc. Exper. Biol. & Med.*, 1932, 30, 205–206.—After injection of epinephrine into the ear vein of the rabbit, contractions of the bowl had disappeared while the characteristic electrogram persisted, the only modification being a greater regularity of the waves and a more rapid rate. With the return of muscular contractions 105 seconds after injection, the electrical variations were found to be in phase with them. Administration of nicotine caused the contractions of the muscle to increase in amplitude after an initial period of sustained contraction, while the electrical record became very erratic and gradually disappeared entirely. These findings are opposed to the view that the action currents obtained from contracting muscle are due to physico-chemical

changes associated with the shortening of the fibers. —*P. Seckler* (Clark).

1273. **Bishop, G. H. Cyclic changes in excitability of the optic pathway of the rabbit.** *Amer. J. Physiol.*, 1933, 103, 213–224.—Successive equal stimuli applied to the optic nerve of the rabbit in general evoke from the contralateral optic cortex responses of variable magnitude, unless the stimuli are very strong, or unless they are timed at certain critical intervals. The shortest critical interval of one-third to one-fifth second presumably corresponds to a cyclic spontaneous variation in the accessibility of the optic pathway, of the character of partial refractoriness, but independent of the stimuli applied. Strong stimuli (activating many fibers of the optic nerve), seem to be able to activate such pathways even when partially refractory, as if by summation at any one element of the effects of the impulses arriving over many optic nerve fibers. This and other similar evidence suggests that the projection pathway from one point of the retina to a corresponding point of the cortex is multiple, and subject to the influence of impulses over other similar pathways. Various experimental and hypothetical considerations are advanced in an attempt to construct a workable scheme that would reconcile these facts with vision.—*C. Landis* (N. Y. Psychiatric Institute).

1274. **Blair, H. A. On the measurement of excitability.** *J. Gen. Physiol.*, 1932, 16, 165–175.—Time-intensity data by Rushton are in agreement with the author's suggestion that integrals of the equation

$$\frac{dp}{dt} = KV - kp$$

describe the time-intensity relation for nerve. Lapicque's canonical curve is discussed and rejected as a criterion of the "validity" of a time-intensity function. The author suggests the use of the constant k of the above equation as a substitute for chronaxy. —*C. H. Graham* (Clark).

1275. **Blair, H. A. On the excitation of tissue by means of condenser discharges.** *J. Gen. Physiol.*, 1932, 16, 177–189.—Integrals of the author's theoretical relation for time-intensity functions in nerve are developed with reference to capacity-voltage relations for stimulation by condenser discharges. These equations are shown to be in sufficiently good agreement with the data of several experimenters.—*C. H. Graham* (Clark).

1276. **Bronk, D. W., & Ferguson, L. K. Impulses in cardiac sympathetic nerves.** *Proc. Soc. Exper. Biol. & Med.*, 1932, 30, 339–340.—In order to arrive at a better understanding of the mechanism of reflex regulation of heart beat and blood pressure the activity of the sympathetic fibers to the heart was investigated. Action potentials, recorded by means of an oscillograph, were obtained from one of the small nerve twigs running to the heart from the stellate or inferior cervical ganglion in a cat. Impulses tended to come in bursts, but the frequency of these volleys did not, in general, correspond to the heart beat or respiratory rhythm. The records show that under these experimental conditions there is normally a "tonic" sympathetic discharge to the heart. Further experimentation with adrenalin, which decreased the frequency of the heart beat, and amyl nitrite, which accelerated the rate, showed in the former case a complete cessation of sympathetic impulses, and in the latter an increase in the activity of the fibers, a definite relation existing, therefore, between the number of sympathetic impulses in the cardiac fibers and the heart rate. Records of action potentials in most of the cardiac branches of the vagus showed the same relationship. Section of the ascending branches of the stellate ganglion abolished the impulses. The authors conclude that vagal branches going to the heart carry a large number of sympathetic fibers which conduct impulses concerned with cardiac acceleration.—*P. Seckler* (Clark).

1277. **Burridge, W. Excitability; a cardiac study.** New York: Oxford, 1932. Pp. 216. $3.85.—*R. R. Willoughby* (Clark).

1278. **Colella, R. Orizzonti e indirizzo della neurologia.** (The perspectives and tendencies of neurology.) *Abruzzo med.*, 1932, No. 1–16.—A synthesis of the science of neurology during the last 50 years.—*R. Calabresi* (Rome).

1279. **Forbes, A., Smith, O. C., Lambert, E. F., Caveness, W. F., & Derbyshire, A. J. The central inhibitory mechanism investigated by means of antidromic impulses.** *Amer. J. Physiol.*, 1933, 103, 131–142.—"The side-fibrils of Golgi have been suggested as a possible mechanism for reciprocal inhibition in spinal reflexes. If the side-fibrils given off by the flexor motor neurones conduct impulses which exert an inhibitory effect on the extensor center, this effect should appear when these flexor motor neurones are excited by antidromic impulses. The sciatic nerve of the cat was completely de-afferented, subsequently the animal was decerebrated, and with the crossed extension reflex as a background, the peroneal nerve was stimulated in order to set up antidromic impulses. In no case did this procedure inhibit the crossed extension reflex, for no significant change in the contractile tension could be correlated with the antidromic stimuli. It is still possible that the side-fibrils are involved in inhibition, perhaps by receiving afferent impulses and conveying an inhibitory effect to the neurones whence they arise. All the animals in this series manifested an increase in contractile tension on cessation of the crossed extensor stimulus, resembling the effect previously recorded under light etherization, and suggesting the activity of an inhibitory reflex during the application of the stimuli. A resemblance is noted between reflex inhibition and the blocking of reflex excitation by antidromic impulses in Eccles' experiments, and it is suggested that a way may be found to explain inhibition as a block dependent on the refractory phase placed in the path of the impulse, as in the case of two impulses colliding in a single fiber."—*C. Landis* (N. Y. Psychiatric Institute).

1280. **Freeman, N. E. Decrease in blood volume after prolonged hyperactivity of the sympathetic nervous system.** *Amer. J. Physiol.*, 1933, 103, 185–

202.—Prolonged hyperactivity of the sympathetic nervous system, whether resulting from the injection of adrenalin in physiological amounts or from the spontaneous emotional activity of the pseudo-affective state, results in a decrease in the circulating blood volume. The emotional hyperactivity of the pseudo-affective state does not lead to a decrease in blood volume in the completely sympathectomized cat in which the vasoconstrictors are absent. It is concluded that prolonged vasoconstriction of itself results in a loss of blood from circulation.—*C. Landis* (N. Y. Psychiatric Institute).

1281. **Heinbecker, P., Bishop, G. H., & O'Leary, J. Allocation of function to specific fiber types in peripheral nerves.** *Proc. Soc. Exper. Biol. & Med.*, 1932, 30, 304–305.—The correlation of the experimental data from the differential blocking of identified potentials and the differential disappearance of sensations permits an allocation of specific functions to specific fibers in a skin nerve. The disappearance of various sensations and skin temperature changes in three surgical patients, and experiments in vitro on the effect of novocaine on the action of the cat's saphenous nerve, along with results from preceding experiments, present evidence for the following conclusions: the unmyelinated fiber types are responsible for vaso-constriction; the temperature fibers are the smallest thinly myelinated fibers of the somatic type found in a skin nerve; "touch" fibers are the large thickly myelinated ones; and joint and pressure senses are mediated by the largest myelinated fibers. The sensation of pain, mediated by a group of small myelinated fibers, is a complex subject to be developed further.—*P. Seckler* (Clark).

1282. **Hinsey, J. C., & Markel, J. E. A search for neurological mechanisms in ovulation.** *Proc. Soc. Exper. Biol. & Med.*, 1932, 30, 136–138.—The authors have sought to discover whether or not any of the efferent pathways from the central nervous system are involved in the ovulation that follows injection of pregnancy urine into the rabbit, an animal in which ovulation is not spontaneous. Ovulation following this procedure was found to have taken place in all cases after transection of the spinal cord at different levels, removal of parts of the cord, and finally, removal of the thoraco-lumbar and sacral cords and bilateral section of the vagus in the neck, in order completely to sever the nervous pathways from the central nervous system which might exert an influence upon the ovary. These facts show conclusively that the visceral afferent and efferent vagal pathways to the ovary, and those which pass to and from the thoraco-lumbar and sacral segments of the spinal cord, are not involved in ovulation induced by injection of pregnancy urine into the rabbit.—*P. Seckler* (Clark).

1283. **Hochheimer, W. Zur Psychopathologie räumlicher Leistungen und ihrer "Restitution."** (On the psychopathology of spatial performances and their "restitution.") *Zsch. f. Psychol.*, 1932, 127, 60–91.—Re-examination of a patient with a frontal cerebral lesion, studied 1½ years previously, revealed an apparent restoration of ability to perform acts which had previously been impossible, regardless of the sense fields involved. The general picture suggested a reacquisition of indicative (*darstellenden*) functions which had been lost. Closer observation, however, led to the conclusion that the increase in efficiency was due to better orientation within a strictly "action space" (*Aktionsraum*), as a result of the employment of special forms of "detour" rather than to the restoration of a truly "indicative space" (*Darstellungsraum*).—*R. B. MacLeod* (Cornell).

1284. **Hoff, H., & Weissenberg, E. Experimentelle Beeinflussung von Hirnfunktionen durch Kurzwellenbesendung beim Menschen.** (Experimental influence upon human brain-function of short-wave radiation.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 141, 460–467.—Radiation with short waves in the region of the cerebellum leads to movements of the arms. Radiation of the frontal region of the cerebrum may lead to various movements—protective reactions, bending, etc. An injured part of the brain shows as a rule less response; the corresponding opposite region shows the strongest reaction.—*C. W. Fox* (Rochester).

1285. **Kappers, C. U. A. The brain of a Lebanese.** *J. Comp. Neur.*, 1932, 56, 15–26.—A detailed examination of the brain of a Lebanese and a comparison with brains of Armenians, together with the examination of extensive data on cephalic indices, leads the author to believe that the Lebanese and Armenians descend from the same racial stock, probably the Hittite or Assyrian population of the country surrounding the Syrian desert.—*C. P. Stone* (Stanford).

1286. **Keller, A. D., & Hare, W. K. Localization of the mechanisms for righting in the brain-stem of the cat.** *Proc. Soc. Exper. Biol. & Med.*, 1932, 30, 190–192.—In a series of operations on various portions of the brain in cats it was found that their righting reflexes were essentially unimpaired. In the case of unilateral removal of the midbrain, which removes one red nucleus completely and cuts all crossing fibers from the other, direct righting from the same side of the lesion occurred in a normal manner, except that the reflex was hyperactive. "Direct" righting did not occur from the side opposite the lesion, although the animal could right itself "indirectly." Other tests showed an unequal distribution of muscular tone on the two sides of the body, tonus being greater on the side of the lesion. These results, obtained by a different approach, verify the findings of Ingram and Ransom, and do not corroborate those of Magnus and Radamaker, which indicated dependence of the righting reflexes on the red nuclei.—*P. Seckler* (Clark).

1287. **Mitolo, M. Le variazioni del contennto in glicogeno del sistema nervoso centrale, durante l'attività riflesse.** (Variations in the quantity of glycogen in the central nervous system during reflex activity.) *Arch. di fisiol.*, 1931, No. 1, 93–109.—The author indicates that during the time of survival (4 hours) of the isolated neuraxis of *Bufo* in the presence of oxygen, it may be observed that a certain

quantity of glycogen contained in the central nervous substance disappears. This disappearance corresponds to 22% of the total glycogen during conditions of rest, and reaches 33% during reflex activity. That is, the diminution of the glycogen content of the central nervous tissue following reflex activity is more than 18% of the diminution observed during the resting state of the neuraxis.—*R. Calabresi* (Rome).

1288. **Mitolo, M. Sulla fisiopatologia della neuroipofisi.** (On the physiopathology of the neurohypophysis.) *Fisiol. e med.*, 1931, No. 9, 689–694.—*R. Calabresi* (Rome).

1289. **Nemliher, L. I., & Penzik, A. S. [Critique of the doctrine of localization.]** *Sovietskaya psikhonevrol.*, 1932, No. 3, 5–27.—Tracing from the ancient elementary conception of brain functions as a general function of an undifferentiated organ, through the manifold and profound historical evolution of the doctrine of the localization of brain functions (brain centers), the authors consider the activity of the central nervous system as a unit. This modern doctrine of the activity of the nervous system does not preclude the concept of the differing importance of the separate parts of the nervous system, but only takes it as a dialectic contradiction, including it as a component.—*A. Yarmolenko* (Leningrad).

1290. **Propper, N. S. [Some questions of planning for psychoneurology.]** *Sovietskaya psikhonevrol.*, 1932, 1, 139–142.—A brief account of the problems encountered in the institutes for scientific research and in the scientific-practical institutions in the U. S. S. R., and a discussion of the methodological premises of these problems.—*A. Yarmolenko* (Leningrad).

1291. **Ruffin, H. Chronaximetrische Untersuchungen des sensiblen und optischen Apparates (an Gesunden, Ermüdeten, Alkoholikern und Schizophrenen).** (Chronaximetric studies of the cutaneous and visual apparatus in normal, fatigued, alcoholic and schizophrenic subjects.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 140, 641–656.—Cutaneous and optical chronaxies are found to lie at the upper limits of values given by other writers. In fatigued, schizophrenic, and chronic alcoholic individuals there is a rather great scattering of liminal values, particularly in alcoholics shortly after deprivation of alcohol and in schizophrenics during acute stages. An increase in the cutaneous (and more rarely in the visual) limen is noted with successive stimuli in fatigue, acute schizophrenia, and chronic alcoholism. A change in excitability of the visual or cutaneous system underlies the instability of chronaximetric limens.—*C. W. Fox* (Rochester).

1292. **Ufland, I. M., & Latmanisova, L. V. [The influence of work on the chronaxy of the neuromuscular apparatus in man.]** *Papers of the Institute of Professional Diseases, Leningrad Medgiz. V. V. Physiological Laboratory*, 1931. Pp. 33–45.—The change of position of the arm, and straining of biceps, does not alter the chronaxy, but the rheobase is altered. Active muscular work increases the chronaxy and the rheobase of the biceps. Static work does not alter the chronaxy, but the rheobase shows a tendency to increase.—*A. Yarmolenko* (Leningrad).

[See also abstracts 1187, 1301, 1305, 1310, 1323, 1326, 1400.]

MOTOR PHENOMENA AND ACTION

1293. **Abshagen, R. Persönlichkeitsbeschreibung eines abnorm handungeschickten Knaben.** (Personality description of a youth of very poor hand dexterity.) *Zsch. f. angew. Psychol.*, 1932, 43, 1–54.—This case of low manual dexterity was discovered in an examination of children at the Institute at Würzburg. The study is a comprehensive survey of every factor contributing to the building up of the personality—heredity, home environment, intelligence quotient, manual dexterity responses, association, thinking, judgment, observation, practical intelligence, suggestibility, a complete character delineation. Both diagnosis and prognosis are given, with a summary of the entire case. The types of tests used are mentioned.—*A. B. Herrig* (Michigan Central State Teachers College).

1294. **Bazett, H. C., & Laplace, L. B. Studies on the indirect measurement of blood pressure. I. Sources of error in the Riva Rocci method.** *Amer. J. Physiol.*, 1933, 103, 48–67.—The blood pressure of the dog was measured directly by means of a cannula placed in the femoral artery and indirectly by the constriction cuffs and graphic recording. It was found that the mechanics of the constriction of the limb gave rise to certain artificial changes in pressure, if this constriction was applied rapidly or removed rapidly. All measurements by indirect means were too low, unless the deflation was conducted slowly. Estimations of diastolic pressure were fairly accurate. In general, the indirect measurements compared very favorably with the direct.—*C. Landis* (N. Y. Psychiatric Institute).

1295. **Beck, L. F. Note on the relation of simple to serial reaction.** *J. Genet. Psychol.*, 1932, 40, 499–501.—Simple reactions with and without preparatory stimulus (using the Dunlap chronoscope) and serial reactions (using the Seashore serial discrimeter) were taken on 38 subjects, and correlations determined between the three types of performance. The relationship between simple reaction and serial reaction seems not to be greatly modified by presence or absence of the preparatory stimulus.—*J. F. Dashiell* (North Carolina).

1296. **Berkson, J., Baldes, E. J., & Alvarez, W. C. Electromyographic studies of the gastro-intestinal tract. I. The correlation between mechanical movement and changes in electric potentials during rhythmic contraction of the intestine.** *Amer. J. Physiol.*, 1932, 102, 683–692.—The investigators made use of an interesting new method of simultaneously recording electrical and mechanical action of the intact intestine of the anesthetized rabbit. During the rhythmic contraction of the intestine a characteristic type of wave of electric potential can be observed which has a definite relation to the mechanical con-

traction. The electrical wave has a symmetrical form, the first half occurring during contraction, the second half during relaxation of the muscle.—*C. Landis* (N. Y. Psychiatric Institute).

1297. **Crisler, G., Van Liere, E. J., & Booher, W. T. The effect of anoxemia on the digestive movements of the stomach.** *Amer. J. Physiol.*, 1932, 102, 629–632.—Anoxemia of grades of 10% oxygen or less, in barbitalized dogs, causes inhibition of gastric digestive motility as indicated constantly by a decreased amplitude of contraction and frequently by a fall in tone. The most plausible explanation seems to be that of the sensitization of the sympathetics by a rise in the blood pH. There is a lack of parallelism in the hunger contractions between the experimental results and those normally found. This may be due to a lack of decrease in the sensation of hunger.—*C. Landis* (N. Y. Psychiatric Institute).

1298. **Crisler, G., Booher, W. T., Van Liere, E. J., & Hall, J. C. The effect of feeding thyroid on the salivary conditioned reflex induced by morphine.** *Amer. J. Physiol.*, 1933, 103, 68–72.—"Large repeated doses of thyroid substance by mouth cause first a stimulation and then a depression of conditioned salivary secretion. The mechanism seems to be an initial cerebral stimulation or sensitization leading to the increased secretory rate, followed by tissue dehydration causing cerebral inhibition resulting in a depression of the secretory rate. Unconditioned salivary secretion is not detectably influenced by thyroid feeding. The conditioned reflex is not accentuated by an artificial raising of the basal metabolic rate by thyroid."—*C. Landis* (N. Y. Psychiatric Institute).

1299. **Darrow, C. W. The relation of the galvanic skin reflex recovery curve to reactivity, resistance level, and perspiration.** *J. Gen. Psychol.*, 1932, 7, 261–273.—The experimental data show that there is a negative correlation between resistance level and recovery rate for the galvanic skin reflex, and a positive relationship between microscopically visible perspiration and recovery rate. The possible use of recovery rate as an index of level of reactivity and for the determination of the "basal" and maximal limits of reactivity in a given skin area is suggested.—*H. Cason* (Wisconsin).

1300. **De Candia, S. I quattro biotipi umani del Pende.** (The four human biotypes of Pende.) *Rinnovamento med.*, 1931, 12, 1–5.—The author explains the concept of biotype and gives a description of the four types.—*R. Calabresi* (Rome).

1301. **Gelfan, S., & Bishop, G. H. Conducted contractures without action potentials in single muscle fibers.** *Amer. J. Physiol.*, 1933, 103, 237–243.—Conducted contractures produced by piercing the membrane of single muscle fibers are not accompanied by action potentials.—*C. Landis* (N. Y. Psychiatric Institute).

1302. **Gianotti, M., & Goldberger, S. Ricerche sul comportamento della secrezione gastrica dopo la fatica in alta montagna.** (Studies on gastric secretion after fatigue in high mountains.) *Arch. di fisiol.*, 1931, No. 1, 32–50.—After intensive muscular work there was a marked decrease of gastric secretion in all its components, together with an increase of urine acidity.—*R. Calabresi* (Rome).

1303. **Hamilton, W. F. Anomalous lacrimation.** *Proc. Soc. Exper. Biol. & Med.*, 1932, 30, 220–221.—A relatively rare case of lacrimation during defecation and urination is presented with the suggestion that the response involves the normal nervous overflow (parasympathetic) as indicated by the fact that the lacrimatory response is eliminated as a result of a moderate dose of atropine.—*P. Seckler* (Clark).

1304. **Hartmann, G. W. Configurational factors in the understanding of actions.** *J. Gen. Psychol.*, 1932, 7, 438–452.—The hypothesis that understanding consists in the comprehension of structures was tested by means of ten unfinished activities which were presented in both "obvious" and "ambiguous" forms. Twenty subjects were required to indicate the direction and the intent of the actions. The results were interpreted as showing that the majority of the instances were structurally conditioned, since the "obvious" situations were subjectively clearer and led to fewer errors.—*H. Cason* (Wisconsin).

1305. **Hinsey, J. C., & Cutting, C. C. The spinal rabbit and its reflexes.** *Proc. Soc. Exper. Biol. & Med.*, 1932, 30, 134–135.—Fifteen rabbits were transected in the lower thoracic region and were observed for ipsilateral and crossed reflexes in the hind limbs. Ipsilateral, crossed flexion and sometimes crossed extension reflexes were present 24 hours after transection. The Stutz positive reflex was well developed by the third day. The gastrocnemius and anterior tibial muscles were dissected and isolated. Reflexes were elicited from these muscles by normal stimulation to the ipsilateral and contralateral limbs and by electrical stimulation of isolated nerves. Ipsilateral extension was found to be more highly developed and more regular than in the cat. It was possible to elicit regularly a tonic contraction of the gastrocnemius by touching the plantar surface of the same limb. The investigators found no support for co-contraction of the flexors and the extensors from Stutz positive stimulation. The responses produced by electrical stimulation were variable. In general, weak stimulation predisposed to crossed extension and stronger stimulation to crossed co-contraction. Very weak faradic stimulation of the tibial nerve at the ankle produced a postural ipsilateral extension. The authors believe this is the first time this response has been obtained with electrical stimulation in spinal animals. Stronger stimulation produced either pure ipsilateral flexion or co-contraction. In general, the spinal reflex patterns in the rabbit were found to resemble those in the spinal cat.—*P. Seckler* (Clark).

1306. **James, W. T. A study of the expression of bodily posture.** *J. Gen. Psychol.*, 1932, 7, 405–437.—A total of 347 different postures were obtained by photographing a human mannikin on a 35-mm. film, and then projecting the postures one at a time on a white screen in a dark room. The figure was dressed

in white athletic trunks and shirt and wore a dark mask. The subjects were asked to report the expressive value of the posture, and, if possible, to designate the factor most significant for the expression given. Bodily posture was expressive under the conditions of attitude, situation, and the nature of the posture itself. Postures were taken under two points of view, first as expression of an attitude or emotion, and, secondly, as expression of a movement. The postural expressions found may be subsumed under two categories, the generic and the specific, which are related to each other as genus and species. The postures were taken as a total, but the observers were usually able to indicate one factor of the posture as most significant for the expression given. The head and trunk taken together are basic to the postural expression; arms, hands, distribution of weight, etc., make more specific the more general expression of the head and trunk.—*H. Cason* (Wisconsin).

1307. **Kissin, M. Relation of induced anoxemia to the pain of muscular exercise.** *Proc. Soc. Exper. Biol. & Med.*, 1932, 30, 114–115.—Experiments were performed to determine the relationship of oxygen content of blood to pain of muscular exercise. It was found that oxygen want is the chief contributing cause of pain development in an exercised muscle, pain disappearing when the blood is suddenly saturated with oxygen, although the exercise be continued. This finding can be correlated with other work showing that inadequate blood supply to a working muscle causes pain. It is suggested that incomplete oxidation of the products of muscle metabolism may be the cause of the pain, and also of the pain of angina pectoris and intermittent claudication.—*P. Seckler* (Clark).

1308. **Migliavacca, A. I moderni concetti sull' antagonismo delle ghiandole sessuali.** (Modern conceptions concerning the antagonism of sexual glands.) *Atti Soc. ital. per il progresso delle scienze, XIX. riun.*, 1931, 2, 366.—The author believes that it is impossible to establish an absolute antagonism between masculine and feminine gonads.—*R. Calabresi* (Rome).

1309. **Patrizi, M. L. L'abbinamento comparativo della doppia curva elettrica di fatica muscolare nell' uomo colla curva autografica di fatica nervosa e mentale.** (A comparison of combinations of the double electric curve of muscular fatigue in man with the curve of nervous and mental fatigue.) *Boll. Soc. ital. di biol. sper.*, 1931, 6, 729–733.—A comparison was made between the effects of cocaine or caffeine on the double electric curve of muscular fatigue and the effects on the autographic curve of mental fatigue with additional comparisons of both curves with the corresponding normal curves. It was found that for the same subject the actions of the cocaine and the caffeine on the special work of the nerve element and the contractile fiber were identical and that they were manifested by a temporary slowing up of the function in question.—*R. Calabresi* (Rome).

1310. **Ranschburg, P. Reflexologie und Psychologie.** (Reflexology and psychology.) *Kwart. psychol.*, 1932, 3, 257–324.—Reflexology and brain mechanics give, with the help and control of psychology, valuable additions and contributions to brain physiology, comparative biology, and animal psychology. Reflexology and brain mechanics, when they do not consider psychology, are not adequate in the knowledge they give of animal behavior. Their value as a surrogate for psychology is like the value of a catalogue in comparison with a library, or a skeleton in comparison with a living organism.—*T. M. Abel* (Sarah Lawrence).

1311. **Sabatini, A. Sulla correlazione degli indici cefalico e facciale.** (On the correlation of the cephalic and facial indices.) *Giorn. di med. milit.*, 1931, 10, 509–520.—The studies made by the author on 100 Italians on the correlation between cephalic and facial indices show marked frequency of dolichocephalics and euryprosopes. In general euryprosopia accompanied dolichocephaly; more rarely, euryprosopia accompanied brachycephaly; more rarely still, leptoprosopia accompanied dolichocephaly and brachycephaly.—*R. Calabresi* (Rome).

1312. **Sawyer, M. M., & Schlossberg, T. The effect of adrenalin instillation on the iris of normal animals.** *Amer. J. Physiol.*, 1933, 103, 153–158.—Adrenalin, if instilled for a sufficiently long time into the conjunctival sac of normal cats or rabbits, exerts an effect on the muscles of the iris. The minimal doses in the cat cause a constriction of the pupil, while larger amounts produce a distinct mydriasis. Emotional excitement was produced in some of the normal animals in which one eye had been previously instilled with adrenalin with no difference in the relative width of the pupillary opening between the instilled and non-instilled eye. In an animal with the nictitating membrane removed, emotional excitement increased quite noticeably the mydriasis which was produced previously by instillation of adrenalin. Failure of emotional excitement to cause an effect on the instilled eye in the normal animal is probably due to too small an amount of adrenin being secreted during the excitement to have any action.—*C. Landis* (N. Y. Psychiatric Institute).

1313. **Schiller, M. Probleme um die Linkshändigkeit mit Untersuchungen an Stuttgarter Schulkindern.** (Problems of left-handedness, with studies of school children in Stuttgart.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 140, 496–516.—A short historical survey seems to show that in earlier times there were more left-handed individuals than now. Statistics indicate an increase in left-handedness from east to west, ranging from 4% in Russia to 13% in Alsace. Left-handedness appears more frequently in males than in females. Although most investigators believe that left-handedness may be inherited, there is no universal agreement. The writer found that left-handedness was hereditary in about 55% of her cases. Total left-handedness is inherited about twice as frequently as partial left-handedness. In 50% of the cases, left-handed individuals were also left-eyed. Individual examinations showed that 61% of the boys and 81% of the girls who showed

speech defects were also left-handed or tended toward left-handedness. The writer confirms the connection of mirror-writing ability with left-handedness. Even right-handed children of left-handed parentage show such ability. The writer is opposed both to re-education of the left-handed in right-handedness and to an "ambidextrous civilization" as advocated in France.—*C. W. Fox* (Rochester).

1314. **Schlosberg, H. An investigation of certain factors related to ease of conditioning.** *J. Gen. Psychol.*, 1932, 7, 328–342.—An extensive study was made of the case of conditioning the knee-jerk reflex to an auditory stimulus. The subject was seated in a raised chair, with the right leg supported just behind the knee, so the lower leg was free to swing. The conditioning stimulus was furnished by a small single-stroke bell, operated by a foot-key, to leave the experimenter's hands free. The ease with which the knee-jerk was conditioned to a bell varied greatly from subject to subject. There was a fairly marked correlation between ease of conditioning and the original facilitating effect of the bell. When the facilitating effect was measured after the conditioning period, the correlation was smaller. There was a positive correlation between speed of reaction and ease of conditioning. The results support the view that the conditioned response established in this and other similar situations is split off from the rest of the subject's activity, like an automatism, and that this splitting-off helps to explain the difficulty of establishing such conditioned reflexes.—*H. Cason* (Wisconsin).

1315. **Schneider, K. Zur Psychologie und Psychopathologie der Trieb- und Willenserlebnisse.** (The psychology and psychopathology of impulsive and volitional experiences.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, **139**, 351–362.—The writer aims to show the impulsive character of all experience and to find a systematic place for impulse phenomena. He distinguishes (1) the general impulsive character of all experience, (2) vital impulses, and (3) mental impulses (striving for recognition, power, beauty, goodness, etc.). A will function comes into play only when choice and decision are made between two impulses. The will is a pure act, the possibility of deciding between two or more concurrent conations. A characterological distinction may be made out between the impulsive and the conscious man. Only the latter makes decisions and activates counter-conations. Any actual person falls somewhere between the two poles, but tends to be predominantly one or the other. Some individuals have a generally heightened impulsive character; phlegmatics form the other extreme. Any vital or mental impulse may be abnormally disturbed. The pathopsychology of will can be only formal; impulse provides the material and content.—*C. W. Fox* (Rochester).

1316. **Schott, A. Zum Problem der Linkshändigkeit.** (A contribution to the problem of left-handedness.) *Zsch. f. angew. Psychol.*, 1932, 43, 119–127.—Records have been taken of left-handed children from a number of teachers and studies made of them. A number of these are described with care, the accompanying character traits noted and suggestions given for remedial procedure.—*A. B. Herrig* (Michigan Central State Teachers College).

1317. **Schott, A. Linkshändigkeit und Erziehung sowie doppelhändige Ausbildung.** (Left-handedness and training, also development of ambidexterity.) *Zsch. f. angew. Psychol.*, 1932, 43, 128–152.—A large number of quotations are given from psychologists of various times and of different nationalities, giving their observations and opinions on left-handedness and ambidexterity. Accompanying character traits are commented upon, with suggestions as to the manner of dealing with them. A comprehensive bibliography accompanies the article.—*A. B. Herrig* (Michigan Central State Teachers College).

1318. **Senise, —. Il tono dei muscoli della mimica.** (The tonus of the mimiery muscles.) *Riv. oto-neuro-oftal.*, 1931, No. 6, 553.—The author studied the tonus of the muscles used in laughing and crying during diseases of the extrapyramidal system and spasmodic laughing and crying as found in pyramidal syndromes.—*R. Calabresi* (Rome).

1319. **Skinner, B. F. On the rate of formation of a conditioned reflex.** *J. Gen. Psychol.*, 1932, 7, 274–286.—In the establishment of a conditioned reflex the observed datum is a change in the quantitative relationship between a stimulus and a response. Prior to the process of conditioning, the stimulus and the response may have been totally unrelated (Type I) or in some way already related (Type II). In either type the process may be dealt with as a change in reflex strength. A method for investigating such a change is described, and data for four rats are presented. The process of conditioning may be essentially complete at one elicitation. A maximal strength is not observed immediately following the event, but the observed strength is accounted for on the ground that certain "new" stimuli were present upon the first elicitation that would normally have depressed the strength in the observed manner. Second, it is a simplification to speak of a single response. Actually a group of many very similar responses is being dealt with. When this diversity is considered, the sub-maximal strength here observed can reasonably be accounted for.—*H. Cason* (Wisconsin).

1320. **Stephens, J. M. The influence of different stimuli upon preceding bonds.** *Teach. Coll. Contrib. Educ.*, 1931, No. 493. Pp. vii + 83.—56 subjects completed seven sets of experiments on a stylus learning apparatus at one sitting: (1) a light hand shock for errors; (2) a medium hand shock; (3) a heavy hand shock; (4) a neck shock; (5) a simple light for success; (6) a discrimination light (a bright light, right; a dim light, wrong; if a bell rings, however, for that trial the signals will be reversed); (7) a delayed light. The experiment was devised to test the hypothesis that "learning may be thought of as a mechanical process consisting of the action of stimuli upon bonds." Results: "learning is not the result of a judging process"; "a delay of 2 seconds

in informing the subject whether he is right or wrong definitely decreases the efficiency of learning"; the flashing light is the most effective device; neck punishment is equal to hand punishment. A bibliography of 122 titles is given.—*J. M. Stalnaker* (Chicago).

1321. **Stevens, H. C., & Snodgrass, J. M. The force-velocity curve of striated muscle.** *Proc. Soc. Exper. Biol. & Med.*, 1932, 30, 373–375.—Using a muscle twitch response of the gastrocnemius muscle of a decerebrate cat to electrical stimulation, the force of the muscle, the speed of contraction, and the shortening in the muscle were obtained from the records for each .01″. From these data the work and power of the muscle were calculated for each time interval. It was found that after the muscle has attained its maximal force, power (force × velocity) is constant, force and velocity, therefore, varying inversely. Thus the usual straight-line relationship between force and velocity is due to the fact that during a part of their cycle the muscles move under constant power. This same fact supports the theory that there are two sources of energy in a contracting muscle, an electro-chemical source, contributing the sudden development of maximal tension, and an elastic source, absorbing this initial outburst of energy and delivering it at such a rate that the muscle does its work under constant power.—*P. Seckler* (Clark).

1322. **Vorobyov, A. M. Protsess induktsii pri vneshnem tormozhenii.** (The process of induction in the case of external inhibition.) *Trudi ukr. psikhonevr. instit.*, 1932, 21, 17–39.—Every inhibition of the conditioned reflex (by introduction of an extra stimulus or by changing of the usual course of the experiment) was followed by a subsequent increase of its effect. Thus the positive induction that up to now has been observed only after internal inhibition is proved to occur also in the case of external inhibition. This is considered evidence for the fundamental identity of both processes.—*E. Hanfmann* (Worcester State Hospital).

1323. **Witt, D. B., Katz, L. N., & Kohn, L. Accessory regulatory mechanism of respiration.** *Proc. Soc. Exper. Biol. & Med.*, 1932, 30, 125–126.—Nervous control of respiration was investigated by denervating the sensory end organs in the aorta, carotid sinus, and lungs in various combinations under different conditions of anesthesia. The results suggest that the sensitivity of the respiratory center influences the effect of denervation, and indicate that the end organs of the carotid sinus, aorta and lungs determine the tonicity of the respiratory center, and that this tonic activity is particularly important when the center is in a depressed state, since removal of this tonic influence at such a time may lead to respiratory death.—*P. Seckler* (Clark).

1324. **Zeller, W. Dem menschlichen Körper aufgezwungene Bewegungsvorgänge und deren Wahrnehmungen.** (Influences of motion and vibration upon the body and their perception.) *Psychotechn. Zsch.*, 1932, 7, 139–147.—A study of the effects of vibrations and motions on the psycho-physiological organism must concern itself with more than the vestibular apparatus as the organ for their perception. The disagreeableness resulting from a fast rate of vibration or a high degree of motion results in distraction from work, quick fatigue, nervousness and in some instances even pain. The extent of disturbance which is produced may be divided into ten different degrees. Machine and traffic vibrations from normal situations may be regarded as causing the first five, which are the comparatively more harmless degrees of disturbance. The next three degrees higher in seriousness of effect are caused by traffic motions, and the two last may cause nausea and pain. If the motions and vibrations are not too strong their effects may be only vestibular, or accompanied by such slight other bodily manifestations that it will not be necessary to study them separately.—*C. Burri* (Chicago).

[See also abstracts 1218, 1240, 1241, 1242, 1257, 1272, 1282, 1286, 1291, 1292, 1326, 1328, 1337, 1371, 1389, 1429, 1491, 1518, 1592.]

PLANT AND ANIMAL BEHAVIOR

1325. **Alverdes, F. The psychology of animals in relation to human psychology.** (Trans. by H. S. Hatfield.) New York: Harcourt, Brace, 1932. Pp. viii + 156. $2.25.—A general and theoretical presentation of selected topics in animal psychology.—*W. S. Hunter* (Clark).

1326. **Benciolini, F., & Dei Rossi, A. Ricerche sperimentali sulle zone riflessogene delle corde vocali (false e vere) negli animali.** (Experimental study on the reflexogenous zones in the vocal cords—intact or injured—in animals.) *Arch. ital. di laringol.*, 1931, 1–2–3, 67–165.—The authors report experiments made with mechanical stimuli on dogs and rabbits in which the nervous system was intact and on dogs and rabbits in which different local nerves had been cut. They ascertained that the lower laryngeal nerve contains some sensitive fibers which are distributed in the cords of the homologous side; and also that they are crossed posteriorly in the dog, and posteriorly and anteriorly in the rabbit.—*R. Calabresi* (Rome).

1327. **Dennis, W., & Henneman, R. H. The non-random character of initial maze behavior.** *J. Genet. Psychol.*, 1932, 40, 396–405.—59 untrained white rats were allowed the freedom of a simple-alternation multiple-T elevated maze for a restricted period of time, only 10 having been fed in the food box previously. 2 went from entrance to exit without error or retracing; and all others behaved in a non-random fashion, making errors or retracing much less often than would be expected by chance. It is inferred that initial maze behavior is not purely random, as is so often assumed. The factors of an initial adjustment and the avoidance of errors demand attention.—*J. F. Dashiell* (North Carolina).

1328. **Eagle, E., Britton, S. W., & Kline, R. The influence of cortico-adrenal extract on energy output.** *Amer. J. Physiol.*, 1932, 102, 707–713.—The influence of cortico-adrenal extract on the energy out-

put of dogs running in a tread-mill has been studied. Three animals were observed for a period of 4, 5 and 7 months. After the standard running capacity had been established the effects of the extract were tested. The injection was found to augment the energy output 100% or more above normal. The average increase in six series of experiments was 90%. The running time and distance run were also increased about 90%. The effects were noticeable for 10 to 15 days after injection.—*C. Landis* (N. Y. Psychiatric Institute).

1329. **Fischel, W. Methoden zur psychologischen Untersuchung der Wirbeltiere.** (Methods of investigation of vertebrates.) **Buytendijk, F. J. J., & Fischel, W. Methoden zur psychologischen Untersuchung der wirbellosen Tiere.** (Methods of investigation of invertebrates.) *Handb. d. biol. Arbeitsmethoden*, 1932, 6, Teil 3. RM. 11.00.—Fischel gives in his first paper systematic observations on the difficulties and limitations of research work in animal psychology. He leans away from behaviorism. Even if it be true that animal psychology can observe only behavior and casual expressive movements, behavior, as a performance that is to be evaluated, must be delimited in some way. The following capacities were investigated: the discriminative powers, ability to grasp relationships, (*Mengenschätzung*) capacity to perceive quantity, memory, perception and insight of animals. In connection with the last factor, insight, Fischel points out that one cannot be too careful and critical in the judgment of insight situations. Pure "primary task performance" (*primäre Aufgabenleistung*), has thus far been described in apes only, while usually experience plays the chief rôle. The second paper deals with the investigation of invertebrate animals. Observation in the free state of nature must go hand in hand with work in the laboratory. The following phyla were investigated: Protozoa, Coelenterates, Echinodermata, etc.—*P. Plaut* (Berlin).

1330. **Hingston, R. W. G. Instinct and intelligence in insects.** *Character & Personality*, 1932, 1, 129–136.—Without attempting to define instinct, the author first gives and illustrates three characteristics of this type of behavior. (1) Instinct is perfect in its form, which is illustrated by the nest-building activities of the Brazilian ant *Atta sexdens* and the capturing of food by the Indian tree-ant, *Oecophylla smaragdina*. (2) Instinct is inflexible, illustrated by migration of locusts and butterflies. (3) There is wisdom in instinctive behavior, illustrated by the way in which the solitary wasp stings her prey for the young wasps so as to paralyze but not to kill it. Intelligent acts are contrasted with instinctive acts in that an instinctive act is inborn, an intelligent act is new in experience; an instinctive act is not associated with reasoning, an intelligent act is dominated by deliberation and thought; an instinctive act has no end in view, an intelligent act has an end in view; an instinctive act is blind and ignorant, an intelligent act is deliberate and involves choice. All animals possess both factors of this dual complex, even in unicellular life. Though their relative proportions will vary, yet they never completely separate and there is a psychological as well as a structural continuity which runs through the whole animal kingdom. —*M. O. Wilson* (Oklahoma).

1331. **Jacobsen, C. F., Jacobsen, M. M., & Yoshioka, J. G. Development of an infant chimpanzee during her first year.** *Comp. Psychol. Monog.*, 1932, 9. Pp. 94.—A detailed presentation of the physical, physiological, and behavioral development of a chimpanzee born in the Laboratories of Comparative Psychobiology at Yale University. Bibliography and 4 plates.—*N. L. Munn* (Pittsburgh).

1332. **Karn, H. W., & Munn, N. L. Visual pattern discrimination in the dog.** *J. Genet. Psychol.*, 1932, 40, 363–374.—Using Munn's discrimination apparatus two dogs were trained to 100% discrimination of black vs. white, to 90% and 95% discrimination of horizontally vs. vertically striped patterns, and to 90% and 80% discrimination of equilateral triangle on base vs. equilateral triangle on apex. Control pairs of stimuli were then presented in the form of fractional parts of the equilateral triangles on base and on apex (outlines, two sides, one side and opposite point, one side, three points, and one point); and both animals were found trainable to at least 80% discrimination on all but the last named. Finally, a series of paired equilateral triangles on base and on apex was used in size reduced from the original 9 inches to 2 inches, with successful training in all but the smallest sizes. It is concluded that the dog probably responds to shape rather than to triangularity or total configuration.—*J. F. Dashiell* (North Carolina).

1333. **Lashley, K. S., & Frank, M. The mechanism of vision. VI. The lateral portion of the area striata in the rat: a correction.** *J. Comp. Neur.*, 1932, 55, 525–529.—Previous experiments by the senior author led to the conclusion that the antero-lateral portion of the area striata is more important for pattern discrimination in the rat than surrounding or other portions of this area. Subsequent consideration of the cases from which this conclusion was drawn brought out the point that the optic radiations as well as the cortex were involved. For this reason new preparations were made in which there was little or no involvement of the optic radiations. Six new cases were considered. In these it was found that pattern vision was possible after destruction of the antero-lateral portions of the area striata and that impairment was no greater than in other cases in which the mesial portions had been destroyed. As the evidence now stands, no portion of the area striata seems to be more important than another for visual pattern discrimination. More extensive studies of this point will be forthcoming.—*C. P. Stone* (Stanford).

1334. **Maier, N. R. F. Cortical destruction of the posterior part of the brain and its effect on reasoning in rats.** *J. Comp. Neur.*, 1932, 56, 179–214.—Using a special form of the Maier technique for studying reasoning ability in rats, the author deter-

mined the effects of a graded series of lesions in the posterior regions of the cortex. 48 animals surviving the cortical injuries were studied. Adequate controls with normal animals provided the background for comparisons whenever self-controls were not used. In most respects the present study confirms the results previously obtained from a study of cortical lesions in the anterior region of the brain. No decrement of reasoning ability is observed if lesions are small, but areas of destruction of 22.8% cause a failure to pass the tests. The critical area of destruction, beyond which tests were failed, was 18% for the anterior regions of the cortex. No explanation of this difference in critical mass was obtained, although several possible clues were considered. Although mass, rather than locus of injury, seems to determine the effects of lesions on reasoning ability, as tested in this study, the results differ from those previously reported by Lashley in that increasing size of lesions does not yield a correspondingly great decrement in ability.—*C. P. Stone* (Stanford).

1335. **Munn, N. L. An investigation of color vision in the hooded rat.** *J. Genet. Psychol.*, 1932, 40, 351–362.—Rats were trained in Munn's discrimination apparatus first to discriminate a Hering color paper from the Hering gray paper number 50; then the brightness difference between the two was reduced step by step until the brightness discrimination had clearly broken down; and further training for discrimination on the basis of the color difference was then carried on. Hering primary colors were found to have for this animal the following brightness equivalents in the Hering gray series: yellow, 7; green, 7; blue, 29; red, 41. The animals were found to be unable to discriminate the yellow and green; and they are concluded to be color blind.—*J. F. Dashiell* (North Carolina).

1336. **Neuschüler, I. Sul differenziamento della cornea nell'embrione di pollo.** (On the differentiation of the cornea in the embryo of the chicken.) *Monit. zool. ital.*, 1931, No. 9–10, 289–297.—According to the observations of the author on the chick embryos from 60 to 267 hours of incubation, the primitive basal membrane appeared to result especially from the condensation of the more superficial elements of the mesenchyme. This finding is contrary to the statements of Laguesse, who describes the basal membrane at the end of four days as produced entirely by the hyaline differentiation of the epithelium. In the formation of the cornea the mesoderm could have the preponderant part, according to the theories of Kölliger.—*R. Calabresi* (Rome).

1337. **Stier, T. J. B., & Wolf, E. On temperature characteristics for different processes in the same organism.** *J. Gen. Physiol.*, 1932, 16, 367–374.—The temperature characteristics for two activities in the same organism (*Daphnia magna*) were found to differ in magnitude. Activities studied were heart beat and respiratory movements. The types of graph for these functions when plotted according to the Arrhenius equation were different. On this basis, then, the organism does not determine the temperature characteristic; rather the temperature characteristic appears to have a specific, local meaning.—*C. H. Graham* (Clark).

1338. **Stone, C. P. The retention of copulatory activity in male rabbits following castration.** *J. Genet. Psychol.*, 1932, 40, 296–305.—2 pre-puberally castrated male rabbits which were tested for approximately two months after the normal age of puberty did not display any evidence of sexual libido as indicated by mounting receptive females. 23 males castrated after puberty displayed, without exception, the ability to copulate. The shortest post-castrational interval for copulation was 8 days and the longest was 57 days. Age differences are uncertain in interpretation beyond the fact of a lower degree of pre- and post-copulatory drive in the old males. It is suggested that a grading of the different indicators of sexual drive is feasible.—*J. F. Dashiell* (North Carolina).

1339. **Tinklepaugh, O. L., & Hartman, C. J. Behavior and maternal care of the newborn monkey (*Macaca mulatta*—"*M. rhesus*").** *J. Genet. Psychol.*, 1932, 40, 257–286.—Observations aided by cinematic records were made upon many monkey babies during birth, immediately after, and for some days. A general story of initial behavioral tendencies can be made out, including: blinking, vocal sounds, vigorous seizing, orienting to mother, oral exploration, mouthing, suckling, coughing and sneezing, and clinging to breast. Differences in emotional-social behavior of the different babies seemed to be determined largely by the attitudes of their mothers toward them. Tests elicited pupillary, visual pursuit, nystagmus, eyelid, and other reflexes, also a pronounced tendency to climb upward; sensory-motor coordination developed more rapidly than in the human infant. Initial emotional responses were similar to those recorded of human babies. Much of the behavior in the complex mother-baby relationship is not to be explained in a simple mechanistic manner.—*J. F. Dashiell* (North Carolina).

1340. **Trueblood, C. K. The behavior of white rats in a rotated tunnel maze.** *J. Genet. Psychol.*, 1932, 40, 330–350.—White rats of two different stocks, 25 from one and 53 from the other, were trained in a tunnel maze (wood sides and ground glass top and floor) of triple-T pattern, after which thorough training the maze was rotated to various new positions. Of the first stock no animals showed disturbances after rotation; of the second stock (two groups) 28% and 34% respectively showed disturbances, but when their home cages were rotated with the mazes the numbers disturbed were reduced to 13% and 20% respectively. From these and other studies it is concluded that maze running is a type of homing response, affected by three classes of stimulation: (1) from the home cage, (2) from the intra-maze situation, (3) from the extra-maze situation. Tunnel maze technique with the home cage position constant during rotation partially controls (1) and (3) and

materially reduces disturbance.—*J. F. Dashiell* (North Carolina).

[See also abstracts 1193, 1269, 1270, 1271, 1272, 1273, 1282, 1286, 1312.]

EVOLUTION AND HEREDITY

1341. **Bickerton, J. M. The inheritance of blindness.** *Eug. Rev.*, 1932, 24, 115–126.—The author believes about 25% of blindness to be hereditary. A review is given of genetic family studies of inherited myopia, detachment of the retina, squint, nystagmus, microphthalmia, retinitis pigmentosa, optic nerve atrophy, absent iris, cataract, night blindness, day blindness, color blindness, ectopia lentis, glaucoma, blue sclerosis, glioma, and maculo-cerebral degenerations.—*B. S. Burks* (California).

1342. **Carter, H. D. Twin similarities in occupational interests.** *J. Educ. Psychol.*, 1932, 23, 641–655.—A study of 120 sets of twins shows that "there are definite family resemblances in occupational interests, as measured by the various scales of the Strong Vocational Interest Blank. The extent of these resemblances as indicated by the present data is represented by average coefficients of correlation of .50 for identical twins, and of .28 for fraternal twins. Since it is certain that the interests of the monozygotic twins are more similar than those of the fraternal twins, and since the data suggest that there is no greater similarity of like-sex fraternal twins than of unlike-sex twins, it seems probable that hereditary factors are more important in determining interests than are environmental factors. This conclusion can only be made tentatively, however, since a part of the greater similarity of identical twins must be attributed to greater similarity of environment."—*J. A. McGeoch* (Missouri).

1343. **Cook, R. C. Inherited variations in the sense of taste.** *Amer. Mercury*, 1933, 28, 67–69.—Arthur L. Fox, a chemist on the staff of E. I. du Pont de Nemours & Co., while experimenting with phenyl-thio-carbamide (P. T. C.), observed that some people could and others could not taste it. When P. T. C. was given to a number of persons it was found that for a little less than half of them it had no taste, for most of the remainder it had a bitter taste, though occasionally an individual was found to whom it tasted sweet, like the closely related drug dulcin. A. F. Blakeslee, of the Carnegie Institution of Washington, Department of Genetics, tested families to determine whether the ability to taste the substance followed Mendelian principles of inheritance, and obtained positive results.—*J. T. Metcalf* (Vermont).

1344. **Fisher, R. A. The social selection of human fertility.** Oxford: Clarendon Press, 1932. Pp. 32. 2s.—Summarizes the author's position on the negative relation of social promotion to fecundity, and upon methods of encouraging eugenic control.—*B. S. Burks* (California).

1345. **Foà, C. Aspetti biologico-statistici del problema demografico.** (Biological-statistical aspects of the problem of demography.) *Gerarchia*, 1931, 8, 679–689.—Faced with the necessity of coming to a decision on the demographic problem on either a quantitative basis or a strictly qualitative one, Italy has chosen the former solution in the belief that power lies in numbers. The author discusses the problem of birth rate along fundamental lines (percentage of marriages, matrimonial sterility, degree of fecundity of unions, abortions, and mortality). Together with the biological factors most efficacious in the resolution of demographic problems, it would be well to use psychological factors in collective education, especially of women.—*R. Calabresi* (Rome).

1346. **Himes, N. E. Birth control in historical and clinical perspective.** *Ann. Amer. Acad. Pol. & Soc. Sci.*, 1932, 160, 49–65.—The author outlines the history of birth control practices and presents a discussion of the present status of birth control clinics. As a social movement birth control did not begin until the educational campaign of Francis Place in 1823, and under his influence the birth control movements in England and America were begun. Until recently the American movement has somewhat followed that of England. In the United States the present American Birth Control League is an outgrowth of the National Birth Control League, which was organized in 1914. At present the United States has more practicing clinics than Great Britain, although contraceptive advice is not nearly as accessible to American as to British citizens. Birth control clinics in general are rendering an increasing service for social and economic rather than purely medical reasons. The most important contemporary aspects of birth control in the United States are the changing attitude of all churches except the Catholic in favor of contraception, a similar change of opinion of physicians, a great improvement in birth control literature, the slowness of legislators to alter the legal situation, and a considerable advance in birth control research regarding techniques and medical and social aspects.—*C. C. Neet* (Clark).

1347. **Jones, D. C. Differential class fertility.** *Eug. Rev.*, 1932, 24, 175–190.—Data collected during a socio-economic survey of Merseyside families showed fecundity to be positively associated with poverty, overcrowding, unemployment, poor health of parents and offspring, and serious mental and physical defect. Fecundity was negatively related to occupational grade.—*B. S. Burks* (California).

1348. **Newman, H. H. Mental and physical traits of identical twins reared apart.** *J. Hered.*, 1932, 23, 369–377.—The author's sixth case is one of women of 58 who were separated between the ages of 3 and 16, but who grew up in the families of relatives under similarly poor social and educational environments. Monozygotic origin is established by physical criteria. Mental ages on the Stanford-Binet differed by 15 months, but on the Otis test by only 4 months. Scores on the Downey Will-Temperament Test, the Kent-Rosanoff, and Woodworth-Mathews were very

similar; those on the Pressey X-O of moderate divergence.—*B. S. Burks* (California).

1349. **Olivo, O. M. L'eredità. Nozioni elementari.** (Heredity. Elementary concepts.) Turin: "Minerva," 1932. Pp. 95.—This small work sums up some lessons in a course in general biology given by the author at the University of Turin. It is dedicated to students and physicians, because they understand the ever-greater importance of the problems of genetics in medicine. After having explained the concept of heredity, including the characteristics of species and individuals, the author takes up the mechanism of Mendelian heredity, the theoretical and practical value of the Mendelian laws, and, finally, the importance of the diffusion of the phenomenon of variability. The material is divided into chapters with the following topics: concept of heredity; variability, chromosomes and Mendelian heredity; chromosome theory of Mendelian heredity; forms of non-Mendelian heredity; heredity in the eugenic man.—*A. Benedetti* (Turin).

1350. **Paterson, A. S. "Anticipation" in mental disease.** *Eug. Rev.*, 1932, 24, 191–193.—Shows statistical fallacies in Mott's study of "anticipation" in the inheritance of insanity, and concludes that "no law of anticipation having a general validity in mental disease has ever been proved statistically."—*B. S. Burks* (California).

1351. **Seeman, E., & Saudek, R. The self-expression of identical twins in handwriting and drawing.** *Character & Personality*, 1932, 1, 91–128.—The importance of a study of twins, particularly identical twins, in isolating the inherited aptitudes from the influence of the environment on the human organism is discussed. There are at present four possible means of determining psychic qualities and of delineating them more or less definitely, viz., (1) psychiatric diagnosis, (2) use of various intelligence tests, (3) use of the Rorschach test, and (4) the scientific interpretation of graphic expression. The present study is concerned with the fourth method, a study of the writings and drawings of identical twins. Three cases are analyzed: Case I, identical twins, normal physically and mentally; Case II, identical twins, normal mentally but abnormal physically, conjoined twins. Case III, identical twins, normal physically but abnormal mentally. The authors conclude: "In view of the foregoing analyses of twin personalities, it appears obvious that as every individual natural object is unique in some respect from every other individual of its species, so even that most identical of Nature's creatures—the monozygotic twin—must yield to her inexorable wish to vary. Therefore, whether it be through the more or less effectual shaping instrument of disease, accident, endocrinal or vasomotory function, reflected differences of environment or diverse experience of life through sensation, feeling, enjoyment or suffering, accumulation of gradual and minute differences seems to be expectable in the alternation and integration of every individual congregation of innate, or hereditary, human material." 21 references.—*M. O. Wilson* (Oklahoma).

1352. **Spiller, G. Francis Galton on hereditary genius.** *Sociol. Rev.*, 1932, 24, 47–56; 155–164.—(*Soc. Sci. Abst.* IV: 22345).

1353. **Wagner-Manslau, W. Human fertility.** *Eug. Rev.*, 1932, 24, 195–210.—In support of his thesis that the fall in birth rate is an evolutionary change, the author shows that German nobility of fertile stock have half a child more on the average than those coming from relatively infertile stock. Noblemen marrying wives from the nobility have less children in the new nobility than in the old nobility. There are still fewer children when their wives are from the commoners. This phenomenon is explained by the negative correlation of wealth and fecundity and the assumption that noblemen marrying beneath their station are marrying for money. The author believes the same principle holds in the middle class population, and cites data from the clergy and from colonial populations in corroboration.—*B. S. Burks* (California).

[See also abstract 1417.]

SPECIAL MENTAL CONDITIONS

1354. **Argelander, A. Selbstbeurteilung und Fremdbeurteilung von Persönlichkeitseigenschaften.** (The subjective and objective rating of personality characteristics.) *Zsch. f. Psychol.*, 1932, 127, 16–41.—15 women and 4 men, all adults who had been members of the same school class for 1½ years, were asked to rate themselves and each other in terms of such characteristics as resoluteness, sociability, ambition, etc., and the subjective and objective ratings thus obtained were compared. The collective ratings were found to deviate slightly from those of Heymans, probably because of vocational selection. High agreement between subjective and objective ratings was found only for some individuals and some traits. It was observed that in general the subjects tended to rate positively in themselves traits which are generally considered as admirable, which might have value in their own specific vocations, which do not suggest a high degree of personal simplicity, and which suggest relatively strong affectivity. The importance of the personality of the rater is discussed.—*R. B. MacLeod* (Cornell).

1355. **Barreto, A. P. Estudo psicotecnico de quatro supernormais.** (Psychotechnical study of four supernormals.) *Arq. d. assist. a psicopat. d. Pernambuco*, 1932, 2, 60–69.—*J. W. Nagge* (Chicago).

1356. **Barth, R. Impersonalistische Persönlichkeitspädagogik.** (Impersonalistic personality pedagogy.) *Dtsch. Schule*, 1932, 36, 513–527.—Hugo Gaudig speaks of the "majesty" of personality. Personality is regarded by Barth as the undivided whole of all characteristics, not as the accumulation of characteristics separately conceived and assembled. The qualities which constitute a personality are its unity, its continuity, its possibility of development. Self-creation through freedom is essential to the growth of the highest type of personality. The

article analyzes and traces the development of personality as here conceived.—*A. B. Herrig* (Michigan Central State Teachers College).

1357. **Bloch, G. Ueber eine seltene Form von Exhibitionismus.** (An unusual form of exhibitionism.) *Zentbl. f. Psychotherap.*, 1932, 5, 604–609.—This form of exhibitionism, which has been reported previously by Stekel, Gutheil, and Missriegler, consists in the use of the telephone as an agency for sexual satisfaction. Bloch's case was a young man, somatically undeveloped, and hence secondarily inhibited in his psychic and instinctive life. The mode of expression of his strongly developed sex instinct —exhibitionism—corresponded to his constitutionally conditioned infantile psychosexual structure. As his inhibitions, his strict moral upbringing, and the environment prevented manifest sex activity, he used a means which demanded less courage—the telephone. The occurrence of an instinct deviation in the sense of a perversion is determined externally by an experience in the erotic environment, while the fact that a perversion can occur depends on constitutional inferiority. A constitution fully developed biologically will reach the normal sex goal in spite of all hindrances. Deviations from this prove that the individual's constitution lacks this cardinal sign of biological maturity.—*M. E. Morse* (Hyattsville, Md.).

1358. **Bridges, J. W. Personality, many in one.** Boston: Stratford, 1932. Pp. vi + 215. $2.00.—Personality is that which characterizes, constitutes, and distinguishes the human being. It is the totality of all physical and mental characteristics, traits, and processes. The psychological personality has three aspects: cognitive, affective, and conative. According to physical make-up, personality is grouped into several types. Intellect is discussed briefly from the standpoint of capacities, intelligence, memory, perception, attention, imagination, and thought. The discussion of temperament concerns itself with such topics as sensitivity, speed of reaction, intensity and extensity, duration, excitants, intelligence, consciousness, and expression of affect. The drives which make up character have certain characteristics such as their excitants, manifestations, habits of control and balance. The many features of personality are significant only when combined to form a total personality. When the balance or organization of personality is disarranged abnormal types result. There is a brief description of various psychological types. The last chapter is a brief discussion of the development of personality.—*L. S. Selling* (Institute for Juvenile Research, Chicago).

1359. **Bossard, J. H. S. The age factor in marriage; a Philadelphia study, 1931.** *Amer. J. Sociol.*, 1933, 38, 536–547.—*R. R. Willoughby* (Clark).

1360. **Brown, W. Psychology and psychical research.** *Proc. Soc. Psych. Res.* (E.), 1932, 41, 75–88.—Whereas "the modern doctrine of the psychology of the unconscious mind" is concerned almost entirely with "subnormal pathological disturbances of consciousness," F. W. H. Myers' "theory of the subliminal self" sought also to explain "supernormal phenomena, including the phenomena of genius and of intellectual and artistic inspiration." The mind is greater than the brain, Brown concludes; and it involves at least one more dimension, free activity, perhaps to be understood through changing our conception of the physical nature of the brain, through future discoveries in cerebral physiology, and through relating psychological time to space-time. Of more than 600 cases of hysteria in the army in France, hypnotized, "a certain small proportion . . . showed clairvoyant and telepathic powers." This indicates that the medium is not "a special type of hysteric," but "a type distinct altogether, with the characteristic of self-hypnosis as an additional one." Statistically, "telepathy is not a wide-spread phenomenon." Individual cases, however, are convincing. "Just as the typical medium is a typical recipient, so the typical psychotherapist is more likely to be a transmitter or agent. . . . As a rule" not voluntary activity "but a spontaneous surging up of feeling in the agent's mind" produces best communication. From direct evidence "I am prepared . . . to agree with the possibility of telekinesis," which may be explained through infra-red rays, liberation of force or transmission of force. Although psychical research could prove only some continued existence, the evidence now makes "survival of bodily death . . . extremely probable."—*W. S. Taylor* (Smith).

1361. **Caster, J. E., & Baker, C. S., Jr. Comparative suggestibility in the trance and waking states—a further study.** *J. Gen. Psychol.*, 1932, 7, 287–301.—Between the first and fourth experimental days the time required to produce lid closure decreased over 60%. The average period of response to suggestion was less in the trance than in the waking state. The average time required to induce a limited amplitude of movement of the extended arm is also less in the trance than in the waking state.—*H. Cason* (Wisconsin).

1362. **Flemming, E. G. Day dreams.** *Scient. Mo.*, 1932, 35, 458–462.—Day dreaming appears when something has gone wrong, and leads to imaginative invention which may be turned into useful channels, but which unless checked by references to reality may develop into pathological cases. Simple cases are described.—*J. F. Dashiell* (North Carolina).

1363. **Giani, —. Del sonno e sue varietà.** (Sleep and its varieties.) *Liguria med.*, 1932, Nos. 1 & 2, 4–9, 33–37.—The author deals with the physiology and pathology of sleep.—*R. Calabresi* (Rome).

1364. **Giltay, H. Psychoanalyse und sozial-kulturelle Erneuerung.** (Psychoanalysis and social reform.) *Psychoanal. Bewegung*, 1932, 4, 439–454.—The origin of the phrase social hygiene is attributed to Pfister. The author shows the difference of ideas of social hygiene between Pfister and Freud on the one hand and Fromm on the other, who takes the Marxian attitude. It is the question of historical materialism versus analytical social psychology. The two viewpoints are analyzed and the social therapeutic values of psychoanalysis are discussed.—*A. B. Herrig* (Michigan Central State Teachers College).

1365. **Heynemann, M. Bericht über die individualpsychologische Sommerschule auf dem Semmering.** (Report on the individual-psychology summer school at the Semmering.) *Psychol. Rundschau,* 1932, 4, 145–157.—This summer session took place June 20 to July 10 with good success. Contributions were made by Alfred Adler during the first week, Leonard Seif during the second week, and Sofie Lazarsfeld during the two following weeks. Dreikurs of Vienna also spoke on *Medicine and Pedagogy* and several others gave contributions from the practice of individual psychology. General satisfaction was the feeling with which all left this summer session.—*A. B. Herrig* (Michigan Central State Teachers College).

1366. **Jekels, L. Das Schuldgefühl.** (Sense of guilt.) *Psychoanal. Bewegung,* 1932, 4, 345–358.—Two instances are cited of a sense of guilt that came under the author's observation in his clinical studies. He analyzes the causes and the nature of this feeling of shame so common in man. He sees a relationship to primitive notions in religion when gods were demons meeting out punishment. Underlying all fear is the dominant need of love and danger of losing it. Loneliness and agoraphobia are traceable to this need of companionship. He emphasizes the narcistic satisfaction that may be obtained through work as a compensation for companionship.—*A. B. Herrig* (Michigan Central State Teachers College).

1367. **Klein, M. The psycho-analysis of children.** (Trans. by A. Strachey.) New York: Norton, 1932. Pp. 393. $5.00.—The book is divided into introductory material and two parts. Part I, *The Technique of Child Analysis,* is devoted to an exposition of the methods developed by the author for the analysis of very young children, and elaborated for dealing with older ones; the seven chapters comprised in this part deal with as many aspects of the problem, and are documented with much illustrative case material. Part II, *Early Anxiety-Situations and Their Effect on the Development of the Child,* is a contribution to psychoanalytic theory in five chapters; it deals with the formation of the function-systems and the vicissitudes that may befall them during their establishment; the last two chapters have to do with the development of the girl and the boy respectively. There is an appendix on the scope of child analysis and a selected bibliography.—*R. R. Willoughby* (Clark).

1368. **Lawton, G. The psychology of spiritualist mediums.** *Psychoanal. Rev.,* 1932, 19, 418–445.—Mediums are drawn from hystericals and introverts. The ability to go into a trance depends on conditions that draw the blood from the brain, inducing cerebral anemia, which is accompanied by lowering the threshold of consciousness and breaking down inhibitions so that memories, visions and wishes break through from the unconscious. The satisfactions derived through mediumship consist of alleviation of a sense of guilt, the continuation of some sexual attachment, retreat from reality into fantasy, and gain of a tremendous sense of power. The motivations of the trance state are similar to those of the day-dream. Many other factors entering into mediumship are also noted in this paper.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

1369. **Lester, O. P., & Barnette, W. L. Some factors relative to adjusted and unadjusted personalities.** *J. Juv. Res.,* 1932, 16, 319–325.—The highest and lowest quartiles of a group of 95 college freshman girls responding to the Thurstone Personality Schedule were compared. The well-adjusted group as opposed to the poorly adjusted tended (1) to score lower on the Pressey X-O test, but higher on the American Council on Education Test as well as on the Iowa Content Test; (2) to make slightly poorer freshman grades; (3) to contain relatively fewer Jews and students whose father's occupations fall in the business as opposed to the professional groups; (4) to contain a smaller percentage of oldest children but a relatively higher one of only children; (5) to be more extroverted; (6) to report much less difficulty in concentration; (7) to express less frequently antipathy to their parents; (8) to confess having been less severely disciplined and having been dominated less in the choice of companions; (9) to show a higher incidence of belief that their homes are culturally and socially superior; and (10) to state more frequently that their childhood had been happy.—*H. L. Koch* (Chicago).

1370. **Lodge, O. The past and the future. Presidential address.** *Proc. Soc. Psychic Res.* (E.), 1932, 41, 61–74.—"To this day . . . the question that interests most of our members" is whether survival of bodily death is possible. This Society has developed in the face of ridicule and hostility, of which the most serious kind is disapproval of critical study of data. "Disinterested curiosity, unselfish candour, unremitting care," must be maintained, after F. W. H. Myers. "I myself am convinced of telekinesis, by direct observation"; also of telepathy. "Many of us are . . . convinced of the reality of a spiritual world and of its interaction with this world." "Our researches are more likely to give information" on the nature of time and space, causality, fate, predestination, determinism, and free will, "than are more orthodox facts."—*W. S. Taylor* (Smith).

1371. **Mayerhofer, G. Untersuchungen über den Einfluss bestimmter Alkoholmengen auf Reaktionszeit und Aufmerksamkeit.** (An investigation on the influence of definite quantities of alcohol on reaction time and attention.) *Indus. Psychotechn.,* 1932, 9, 257–267.—Since one cannot say in a general sense that the effect of alcohol on automobile driving is deleterious, the author attempted to determine just what amount of alcohol makes a driver unfit to drive. Six subjects, three of whom were non-drinkers, were submitted to a series of reaction tests on the Moede test automobile. Simple, complex, serial and disjunctive reactions were tested under normal situations and when various amounts of beer, wine or liquor had been drunk in 40 c.c. doses. Special care was taken to determine, if possible, that amount of alcohol which clearly disturbed the subject's ability

to drive the car. The various kinds of drinks produced different effects, and again, these effects varied from person to person. Wine produced an average increase of 10% in the length of the reaction time. The alcohol-habituated persons showed less effect than the individuals who did not drink; but even here the effect varied for different kinds of drinks. For example, these people give shortened reaction times for 40 c.c. wine, but when the same amount of alcohol was given in the form of beer they showed no effects at all. The reaction times were usually less speeded up by beer than by wine. After several repetitions of 40 c.c. doses of alcohol an increase in the length of the reaction times occurred, but the increase was not steady or proportional to the amount of alcohol consumed. This fact was also demonstrated on the Bourdon test. Alcohol decreased attention, but in no definite degree. The effects of alcohol on attention may be compared to the symptoms in a highly neurotic person. According to these results it would be unjust to generalize about the effect of alcohol, especially in connection with automobile accidents. Thus it cannot be stated simply that alcohol was the cause of an accident, but the situation must be duplicated and the effects on the driver of the kind and amount of alcohol consumed must be measured.—*C. Burri* (Chicago).

1372. **Mitchell, M. B. Retroactive inhibition and hypnosis.** *J. Gen. Psychol.*, 1932, **7**, 343–359.—Two subjects learned and relearned lists of ten three-place numbers, and the procedure was that of a regular retroactive inhibition experiment with controls. Each subject learned one list of numbers in the waking state, then either learned a second list or did some light reading in the waking state, and finally relearned the first list either in the waking or trance state. The results showed no improvement in the trance state, as compared with the waking state, for memory of recently learned lists of numbers. This was consistently true for both subjects when judged in terms of saving in trials, saving in errors, and recall.—*H. Cason* (Wisconsin).

1373. **Multaretuli. Goethe über die Psychoanalyse.** (Goethe on psychoanalysis.) *Psychoanal. Bewegung*, 1932, **4**, 386–392.—The author presents points in Goethe's writings that reveal his consciousness of many of the contributions since given to the world by Freud and others. Passages are quoted revealing thoughts of the sub-conscious, of repressions, and of compensations in his character delineations.—*A. B. Herrig* (Michigan Central State Teachers College).

1374. **Peters, W. Typen und Normen.** (Types and norms.) *Zsch. f. Psychol.*, 1932, **127**, 92–112.—The concepts of type and norm are analyzed and their usage criticized. It is found that, with the exception of ideal norms, all norms can be reduced to terms of type or sub-type, and that the term "type" is least unsatisfactory when it is used to refer to the common characteristics of a group which distinguish that group from all others.—*R. B. MacLeod* (Cornell).

1375. **Pintner, R. Neurotic tendency and its relation to some other mental traits.** *School & Soc.*, 1932, **36**, 765–767.—"With a group of 50 university students studying mental testing, no high correlations were found between their neurotic tendency scores and several other tests. Correlations with intelligence, academic achievement, and mechanical ability are low and negative; with four specific attitudes, practically zero. The highest correlation is found between prejudice and neurotic tendency, and this is only .33. The best practical mental testers, as compared with the poorest, are somewhat less neurotic, are decidedly more fair-minded (less prejudiced) and test slightly better in mechanical ability."—*H. L. Koch* (Chicago).

1376. **Platonov, K. J., & Matskevich, A. N. Gipnoz i alkogolizirovannaya nervnaya sistema.** (Hypnosis and the nervous system under the influence of alcohol.) *Trudi ukr. psikhonevr. instit.*, 1931, **15**, 93–106.—It has been noticed in treating alcoholics by hypnotic suggestion that the acute intoxication disappeared during the hypnotic trance. This was verified in experimenting with two normal subjects. They were tested for memory span, reproduction of word pairs and the number of words freely associated in three minutes. The same tests were repeated first in the state of alcoholic intoxication and then after a short hypnotic sleep into which the subjects were put during the state of intoxication. The scores showed a marked drop during the period of intoxication and rose to their original level after the hypnotic sleep. The same results were obtained when the state of intoxication was merely suggested to the subject during a preliminary hypnotic trance. On the other hand, if the subject was made to believe that the alcohol he drank in the hypnotic state was water he showed no signs of intoxication on being awakened and performed the tests at the normal level.—*E. Hanfmann* (Worcester State Hospital).

1377. **Potter, G. Analytic suggestions about Alfred W. McCann.** *Psychoanal. Rev.*, 1932, **19**, 454–461.—The choice of life work by McCann is seen as a result of his early experiences, his having grown up in an orphanage, etc. It is suggested that perhaps McCann's unconscious antagonism to the father caused him to feel antagonistic to authority of all kinds and that an unconscious love of the mother may have caused the choice of food as his life work.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

1378. **Reik, T. Grenzland des Witzes.** (The borderland of wit.) *Psychoanal. Bewegung*, 1932, **4**, 289–322.—An analysis of wit, its quick insights, and the hidden meanings that arouse merriment. The author discusses the problem from five angles: (1) psychological examination of wit; (2) irony and the compulsion-neurotic disdain; (3) comments on sarcasm; (4) the child-like and childish in humor; (5) wit in slips of the tongue. There is a possibility that wit reverts to a primitive language when words had both a negative and a positive connotation. The author discusses the various forms of wit, the part the unconscious plays, and the source of laughter.—

A. B. Herrig (Michigan Central State Teachers College).

1379. **Roback, A. A. Writing slips and personality.** *Character & Personality*, 1932, 1, 137–146.—Subjects were directed to write with utmost rapidity a series of dictated words and other symbols at a pace governed by the gradual shortening of a cord pendulum on a weight motor. The interference was reduced primarily to the motor side, although such factors as imagery could not be ruled out. Practically all of the lapses were due, according to the author's theory, to the complementary neural processes of perseveration and assimilation, the first a tendency of a movement to be repeated, the second a tendency of a movement to resemble another in close proximity. Some of the objective results are: (1) compensation, (2) vowels more frequently omitted than consonants, (3) more pronounced consonants (*f, g, y*) preferred to less pronounced consonants (*l, c, t*); (4) downward strokes and centripetal movements preferred to others; (5) breakdowns in the same place in a series several times by the same and with different subjects (indicating uniformity of psychical processes); (6) exaggeration, large writing becoming larger, "loopy" writing becoming "loopier" and angular writing becoming more angular. Non-verbal (auditory) stimuli were even more distracting than verbal, apparently because of the tendency to translate sound into word and to pronounce the word. Best examples of the process of assimilation were found in the use of Yiddish and Hebrew by natives of Palestine and Poland. Mental patients (mild cases) tended less toward mechanization than did normal subjects and reverted more easily to former habits. Theories of dissimilation and the unconscious are discussed and their importance minimized as bases for interpreting writing slips.—*M. O. Wilson* (Oklahoma).

1380. **Rugh, C. E. Some principles and methods of personal triumph.** *Rel. Educ.*, 1932, 27, 818–822.—All normal people desire to succeed and keep normal by efforts to achieve success in commendable enterprises. One creates his own personality by attempts to succeed and assumes responsibility for the results. In the course of the process, he discovers the conditions under which he must work, the nature of his own ability and the method of procedure. Primary faith is an essential feature of the process, and the enjoyment of improvement is indispensable to the integrating of personality.—*J. P. Hylan* (Stoneham, Mass.).

1381. **Schwarz, O. Zur Psychologie des Welterlebens und der Fremdheit. Dargelegt an einem Fall von Homosexualität.** (The psychology of experience of the world and of strangeness. Illustration by means of a case of homosexuality.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 139, 97–132.—A case study of a 31-year-old homosexual woman is followed by a theoretical discussion. The writer concludes that the fundamental characteristic of homosexual behavior is immaturity, expressed in unproductivity (in the widest sense) and senselessness. The structure of "masculine" homosexuality (in men or women) is different from that of "feminine" homosexuality (in men or women). Both may be derived from the mental sexual character of the man or woman. We may thus understand homosexual behavior, but we cannot thereby explain homosexuality. There is a phenomenology of homosexual behavior and a psychology of homosexual experience, but not a psychogenesis of homosexuality. The origin of homosexuality is rather a biological problem.—*C. W. Fox* (Rochester).

1382. **Stagner, R. Differential factors in the testing of personality. I. Sex differences. II. Differences in maturity.** *J. Soc. Psychol.*, 1932, 3, 477–487.—The two papers report chiefly the results of six personality tests given to a group of 175 college students. The tests used were: Allport A-S test, Colgate (Laird) C2 test, Neymann-Kohlstedt extroversion-introversion test, "social intelligence" test, Thurstone "personality" (neurotic) inventory, Hart's social attitudes test, and the Pressey X-O scale. The last mentioned was given to a second group of 154 students. No significant sex differences were found except for the Thurstone neurotic inventory. Significant age differences were found only for the extroversion test. Education and maturity obscure other possible correlations.—*E. B. Newman* (Harvard).

1383. **Stekel, W. Analysis of a dyspareunia on the basis of dream interpretation.** *Psychoanal. Rev.*, 1932, 19, 446–453.—The dream of a patient is reported together with the technique of the analyst in interpreting the dream, in order to illustrate Stekel's "active method" of dream interpretation. After the patient has ceased to make associations with the dream elements, the analyst brings up questions about past experiences and relationships which enable the patient to go on with the associations and to make a more complete analysis of the dream.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

1384. **Storfer, A. J. Philosophie des Geizes.** (The philosophy of avarice.) *Psychoanal. Bewegung*, 1932, 4, 378–380.—The article is a discussion of the various writings that have come from the hand of Freud, Laforgue, Beck and others in an analysis of the avaricious character. This trait closes the way to a sense of higher values and it fails of satisfaction because it engenders a continued desire for more and more. It is an evidence of weakness, an acknowledgement of fear for the future. Beck places it in contrast with the holy poverty of Taoism and Chinese culture.—*A. B. Herrig* (Michigan Central State Teachers College).

1385. **Taft, J. An experiment in a therapeutically limited relationship with a seven-year-old girl.** *Psychoanal. Rev.*, 1932, 19, 361–417.—A report of an application of Rankian analytic techniques in the treatment of a child, with detailed account of the sixteen interviews; also a discussion of the theoretical applications, giving some of the differences between Rankian and Freudian approaches. A chief difference is lack of effort, in the Rankian analytic situa-

tion, to bring out sex material, developmental history, and parental relationships. No interpretation of Oedipus desires or castration fears is given. The Rankian technique involves constant effort to understand and respond to the feelings and impulses immediately expressed in the interviews and provides an opportunity for the child to begin to accept responsibility for those feelings and impulses in all their ambivalence with as little denial, rationalization and justification as possible. In the Rankian method, there is no goal set by the analyst; the child is free to use the situation and the analyst and to effect a cure in his own way. There are further discussions of the Rankian viewpoint and handling of the transfer and of other elements and concepts in therapy.—*P. Blanchard* (Philadelphia Child Guidance Clinic).

1386. **Uhrbrock, R. S. Rating tendencies of personally selected judges.** *J. Educ. Psychol.*, 1932, 23, 594–603.—137 college seniors and graduate students rated themselves on a "Judgment Blank for Estimating Personal Traits" and were rated, on a corresponding blank, by 353 judges selected by the students. The evidence presented "indicates that personally selected judges tend to rate an individual higher than he rates himself. This may be due to a tendency on the part of the one naming judges, and requesting ratings, to limit his requests to persons who have previously given evidence of their good will, and who would be fairly certain to appraise him highly." Samples of trait descriptions and a distribution of the ratings are given.—*J. A. McGeoch* (Missouri).

1387. **Williams, G. W. A study of the responses of three psychotic groups to a test of suggestibility.** *J. Gen. Psychol.*, 1932, 7, 302–310.—An attempt was made to determine whether or not a test of suggestibility will produce a characteristic type of response in three psychotic groups diagnosed as (1) dementia praecox, catatonic type (32 men and 21 women), (2) dementia praecox, paranoid type (12 women), and (3) manic-depressive psychosis, manic phase (18 women). A tracer was attached to the subject's clothing, without his knowledge, at the level of the shoulders. Forward and backward movements of the subject's body were recorded mechanically. The subject was blindfolded, and the experimenter suggested that he was falling forward. The catatonic and paranoid forms of dementia praecox were distinguishable by the negative suggestibility of the former and the tendency to positive suggestibility of the latter. The manic phase of the manic-depressive psychosis was marked by a lack of responsiveness to the outside stimulation used in this study. The tendency to distractibility on the part of the manic subjects did not seem to be directly related to suggestibility. A large number of the records showed no response to the test of suggestibility.—*H. Cason* (Wisconsin).

1388. **Wolfesberger, T. P. Ein psychokathartisch behandelten Fall von Hysterie: Beitrag zur Kenntnis der Unterschiede im dynamischen Ablauf der Psychokatharsis (Breuer) und der Psychoanalyse (Freud).** (A case of hysteria treated by psychocatharsis: A contribution to the study of the difference in the dynamic course of Breuer's psychocatharsis and Freud's psychoanalysis.) *Zentbl. f. Psychotherap.*, 1932, 5, 594–604.—The most striking difference in the two methods, although only a quantitative one, is the short time required to reach a given result by psychocatharsis, because the patient is enabled to abreact powerful emotions quickly. This is the chief advantage of psychocatharsis. Its disadvantages are, first, the passivity demanded by the hypnotic situation. Resistance is merely eliminated, not actively overcome as in psychoanalysis. Still more important is the kind of transference; i.e., the infantile-erotic strivings, which are the preliminary conditions for hypnosis, must remain unresolved. These dynamic differences rest on the difference in the state of consciousness in the two methods. In psychocatharsis, the material appears in dream form with hallucinations and extraordinarily vigorous action. The patient actually experiences. In psychoanalysis, an unconscious motive breaks into normal consciousness. The author doubts whether the results of psychocatharsis are as lasting as those of psychoanalysis, although they are more so than in ordinary hypnosis. In psychocatharsis, as well as in psychoanalysis, there is an autonomous super-ego formation, not a mere transference cure. The indication for psychocatharsis is, first, the diagnosis. The treatment is most successful in hysteria. In uncomplicated compulsion neuroses, psychoanalysis is the method of choice. Furthermore, the indication for psychocatharsis may be purely practical, i.e., when only a short time is available, a partial result is better than no treatment. —*M. E. Morse* (Hyattsville, Md.).

1389. **Wolff, W. Charakterologische Deutung eines Handlungsablaufes.** (The indications of character as evidenced by the procedure of an activity.) *Zsch. f. angew. Psychol.*, 1932, 43, 100–118.—Modern psychology deals with the dynamic rather than with the static. All motion has an end in mind objectively directed and a source which is innate, an urge. Behaviorism has dealt with the end, psychoanalysis with the urge, Gestalt studies the entire procedure of the activity. The author describes in detail an experiment with students going through an activity while films were taken. These were presented to observers for character interpretation. Great agreement was found between judges, showing the reliability of judgments of character from one activity in progress. The article shows the experimental type of procedure in Gestalt psychology.—*A. B. Herrig* (Michigan Central State Teachers College).

[See also abstracts 1293, 1351, 1429, 1444, 1455, 1463, 1465, 1596, 1503, 1540, 1547, 1645.]

NERVOUS AND MENTAL DISORDERS

1390. **Alberti, —. Sul cefalo-idrocele traumatico.** (Concerning traumatic hydrocephaly.) *Radiologia med.*, 1932, 2, 183–185.—*R. Calabresi* (Rome).

1391. **Allen, J. K. The library in occupational therapy.** *Occup. Therap. & Rehab.*, 1932, 11, 415–424.—Emotionally maladjusted patients frequently

read as though blindly seeking something. The librarian may render some guidance in this respect. Sometimes it is desirable to divert the patient from certain subjects; each case must be dealt with individually. To some extent the reading compensates in imagination for what the patients lack in reality. Mystery and murder stories seem to appeal to those who are struggling against rather heavy odds. Physically strong male patients seldom select religious books. Old people prefer stories which remind them of the past. Highly imaginative stories, such as *Dracula*, are undesirable for over-excitable patients. —*H. E. Burtt* (Ohio State).

1392. **Alteri, —. Neurosi e malattie nervose di organi nell'odierna concezione biologica.** (Neuroses and nervous diseases of organs in current biological conception.) *Morgagni*, 1931, No. 38, 1818–1822.—Synthetic review and criticism.—*R. Calabresi* (Rome).

1393. **[Anon.] Der V. Nordische Psychiatrische Kongress.** (The fifth Nordic psychiatric congress.) *Zentbl. f. Psychotherap.*, 1932, 5, 702–704.—About 130 psychiatrists from Sweden, Norway, Iceland, Finland, and Denmark attended this meeting, held at Copenhagen in August, 1932. The main subject of discussion was the etiology and pathogenesis of the endogenous psychoses. The viewpoint was almost exclusively organic and materialistic. The topics of some of the most interesting papers were: artistic productions of schizophrenics (Helweg); treatment of manic-depressive depression (Tomasson), based on the function of the vegetative nervous system as the link between psyche and soma; anthropometric determinations of body types (Wigert), based on Kretschmer's fundamental researches; and the film as a psycho-traumatic experience in childhood (Brüel). A joint meeting was held with the International Psychological Congress, at which session Birnbaum gave an introductory address on the principles of psychopathological biography.—*M. E. Morse* (Hyattsville, Md.).

1394. **Baeyer, W. v. Ueber konformen Wahn.** (Conformal delusion.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 140, 398–438.—Certain of the paranoid disorders which pass under the name of "induced insanity" represent genuine process-psychoses which, in the close communal living of the patients, influence each other and result in a more or less conformal disease picture. These cases exemplify the psychogenic plasticity of schizophrenic psychoses.—*C. W. Fox* (Rochester).

1395. **Benelli, R. Di un raro disturbo motorio involontario nella marcia di un amiostatico.** (On a rare case of involuntary motor disturbance observed in the walk of a patient suffering from amyostasia.) *Sperimentale*, 1931, No. 4, 182–185.—A description of a case of extrapyramidal paresis involving flexion disturbances in the right leg during walking and at any time that the patient tried to set in action the flexor leg muscles.—*R. Calabresi* (Rome).

1396. **Beringer, K., & Ruffin, H. Sensibilitätsstudien zur Frage des Funktionswandels bei Schizophrenen, Alkoholikern und Gesunden.** (Sensitivity studies regarding functional change in schizophrenic, alcoholic and normal subjects.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 140, 604–640.—These studies deal with the question whether functional changes in the sensory sphere appear only when the sensory path shows a lesion or may be found in cases of organically intact conduction. Sensitivity to pressure (from pressure hairs) and cutaneous perception of form were investigated. Among schizophrenics there was no primary increase in the limen for pressure. With stimuli repeated at the same area at intervals of 1 or 2 sec., the same types of change appeared as in the organic neural disorders described by Stein and v. Weizsäcker: (1) lability of the limen, (2) durable sensations, and (3) lengthened refractory phase. After about half a minute of no stimulation, the limen fell to the initial value. Successive fusion was more marked with schizophrenics than with normals. In chronic alcoholics, the pressure limen lay toward the upper normal limit. In most cases, lability of the limen appeared in various forms. The initial limen was higher in delirious patients. The pathological phenomena with alcoholics were more pronounced than with schizophrenics. Lability of the limen is found also in normal subjects, and with successive stimulation their pressure limens increase. Lability of the limen may accompany acute or chronic fatigue. All the results show that the functional changes considered are not necessarily connected with organic disturbances in brain or spinal cord; they are to be regarded as the expression of a general biological modification of the state of the organism. Since in normal subjects disturbances in cutaneous form perception do not necessarily accompany lability of the limen, the former cannot be reduced entirely to the latter.—*C. W. Fox* (Rochester).

1397. **Brotemarkle, R. A. [Ed.] Clinical psychology; studies in honor of Lightner Witmer to commemorate the thirty-fifth anniversary of the founding of the first psychological clinic.** Philadelphia: Univ. of Pennsylvania Press, 1931. Pp. xxi + 409. $3.50.—The purpose of this volume is two-fold: (1) as an expression of personal affection and scientific appreciation of Lightner Witmer; and (2) to bring to the present workers in psychology and allied fields a summarized view of the broad applications of clinical psychology and to serve as a form of vocational information to prospective students. The volume consists of three parts: Part I, historical, includes a biographical sketch of Witmer and a history of the psychological clinic. Part II consists of commemorative studies, written by former students of Witmer, concerning: (1) thirteen papers on *The Primary Problems of Clinical Psychology*, and (2) twelve papers on *The Contributions of Clinical Psychology to Other Fields*. Part III contains three reprints of Lightner Witmer from the *Psychological Clinic: Clinical Psychology*, 1907; *On the Relation of Intelligence and Efficiency*, 1915; *Psychological Diagnosis and the Psychonomic Orientation of*

Analytical Science, 1925.—*C. V. Hudgins* (Clarke School for the Deaf).

1398. **Burkhardt, H. Studie über endogene Psychosen bei Juden.** (Study concerning endogenous psychoses among Jews.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1931, **135**, 733–766.—The psychoses among Jews frequently elicit surprise because of atypical symptoms and the courses which they take. Regarding distribution, it is found that manic-depressive insanity is the most frequent psychosis among Jews. Of 55 of Burkhardt's cases, 16 were manic-depressive and 18 were atypical. The "clear-cut" forms of cyclothymia, massive catatonia and expressive paranoia shade off into heterogeneous components of exhibitory psychoses which either run their course with relatively few symptoms or else present an abundance of transitory vague symptoms. The following constitute a frequently appearing tendency: abundant expression, hyperkinesia, lack of inhibition, hypochondria, sensitiveness (particularly toward that which "belongs" to the patient), quavering speech, reflection upon self, and self-criticism. Most commonly a querulant characteristic is found, which takes the form of restlessness and dissatisfaction. This characteristic may be designated "reactive lability." Characteristic are milder drives of a hysterical and paranoid nature, which do not reach the gross paranoia which follows the violent extroversions ordinarily encountered. These remarkable violent extroversions, which remain concealed from the associate of the pathological Jew, make the prognosis of the psychosis favorable. Unfavorable, on the other hand, is the fact that the psychotic mechanisms often run their course without fulfilment of their contents. The "degeneration-psychoses," i.e., those which develop in a psychopathological manner, are very common. It is just this material which shows that in general the endogenous psychoses cannot be satisfactorily classified, since the type of personality colors the picture. The data on ailments of the Jew are especially rich in information on the biology of heredity.—*S. Krauss* (Frankfurt a.M.).

1399. **Burrow, T. Sogenannte "normale" soziale Wechselbeziehungen in Individuum und Gruppe, und ihre Bedeutung für das Problem neurotischer Störungen.** (So-called "normal" social mutual relationships in individuals and groups, and their meaning for the problem of neurotic disturbances.) *Zentbl. f. Psychotherap.*, 1932, **5**, 677–691.—A translation of an address before the Section on Sociology and Psychiatry of the American Sociological Society at its twenty-fourth annual meeting in Washington in December, 1929. Appeared in *Amer. J. Psychiat.*, 1930, **10**. (See V: 3162.)—*M. E. Morse* Hyattsville, Md.).

1400. **Bychowski, G. Ueber Schizophrenie mit neurologischen Symptomen.** (Schizophrenia with neurological symptoms.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, **140**, 798–807.—Cases are reported and discussed.—*C. W. Fox* (Rochester).

1401. **Clemmesen, C. Ein Fall von dysmegalographia alternans.** (A case of dysmegalographia alternans.) *Acta psychiat. et neur.*, 1932, **7**, 949–954.—A case of hysteria in a 9-year-old boy diagnosed on the basis of life history, behavior, situation as only child of over-anxious parents, rapid changes from macroscopic to microscopic handwriting accompanied by no other visual disturbances, and later functional attacks which might be characterized as "twilight states."—*M. L. Reymert* (Moosehaert Laboratory for Child Research).

1402. **Constabile Barnabei, M. La tabe dorsale in rapporto all'assicurazione vita.** (Dorsal tabes in relation to life insurance.) *Rass. della previdenza soc.*, 1932, **1–2**, 66–83.—The author believes that it is possible to accept tabetics for life insurance. The condition of the patients should be evaluated on the basis of anamnestic and objective data and laboratory examinations.—*R. Calabresi* (Rome).

1403. **Del Greco, F. Sindromi psicopatiche tossico-infettive dal punto di vista medico-legale.** (Toxic and infectious psychopathic syndromes from the medico-legal point of view.) *Abruzzo med.*, 1932, No. 1, 17–19.—*R. Calabresi* (Rome).

1404. **Doll, E. A. The problem of the feeble-minded in New Jersey.** *Tr. Sch. Bull.*, 1932, **29**, 125–132.—Our present problem is to determine which feeble-minded must be cared for in public institutions. We must take account of age, sex, home conditions, health, social habits, and criminal tendencies. Practically all require some degree of supervision and charitable aid. New Jersey ranks 39th among the states in order of prevalence of feeble-mindedness, with a ratio of 8 per 1000 classed as mentally deficient, as compared with 12 per 1000 in the country at large. The prevalence of feeble-mindedness in children of school age, according to the White House Conference of 1930, was 2%. Probably out of the 4 million in New Jersey 16,000 children and 24,000 adults are so seriously handicapped in mental capacity that they must receive special assistance. Probably only 4000 are now in institutions, leaving 90% still in the community. The success of institutional methods, possibilities of parole, practicability of sterilization, and the possibilities of community supervision have been studied and the results provide sound information to guide public opinion in continuing a program designed to meet the problem practically, efficiently, and economically.—*E. M. Achilles* (Columbia).

1405. **Dosuzkov, T., Kocka, Z., & Utti, K. Pripad mozeckove nedostacivosti a zvysene drazdivosti vestibularni z akutni otravy alkoholem.** (A case of cerebellar insufficiency and of hyper-irritability of the vestibular apparatus after deep alcoholic intoxication.) *Rev. v neur. a psychiat.*, 1931, **28**, 91–95.—A case of deep alcoholic intoxication in a young man, with an abnormal post-narcotic phase. In this phase there were observed, in addition to general symptoms (somnolence, etc.), the typical symptoms of cerebellar insufficiency (hypotonia, ataxia, asynergia, hypermetry, adiadochokinesia), vestibular hyper-irritability (spontaneous nystagmus, rotatory and caloric hyper-reflectivity, especially on the right

side), and some reflex disorders (the inverse symptom of Argyll-Robertson, an augmented masseteric reflex, and others) in addition to the disappearance of the abdominal reflexes (cutaneous, tendinous, and medio-pubic). All these pathological symptoms disappeared after two weeks.—*E. H. Kemp* (Clark).

1406. **Duprat, G. L. La psycho-pathologie sociale.** (Social psychopathology.) *Riv. di sociol.*, 1931, 5, 285–342.—(*Soc. Sci. Abst.* IV: 22398).

1407. **Eckerström, S. Ein Fall von posttraumatischer extrapyramidaler Hirnaffektion.** (A case of post-traumatic extrapyramidal brain affection.) *Acta psychiat. et neur.*, 1932, 7, 785–795.—The case is one of a 52-year-old man who received an injury which affected his right arm and after three months also the central nervous system. At an examination 1½ years later the patient showed extrapyramidal symptoms, including both motor and sensory disturbances, among these a hemi-anesthesia of a thalamic character.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

1408. **Fenton, N. The Pacific Colony plan.** *J. Juv. Res.*, 1932, 16, 298–303.—The author describes the philosophy, the administration machinery, and the educational program of the Pacific Colony—a colony in California for the feeble-minded.—*H. L. Koch* (Chicago).

1409. **Ferreri, G. Ricerche sulla funzione cocleare nei parkinsoniani post-encefalitici.** (Studies on the cochlear function in cases of post-encephalitic parkinsonism.) *Riv. oto-neuro-oftal.*, 1931, No. 4, 324–333.—An examination of the cochlear function often shows small acoustic deficiencies especially in cases involving the inner ear.—*R. Calabresi* (Rome).

1410. **Gentile, N. La medicina psicologica nella pratica medica quotidiana.** (Psychological medicine in everyday medicinal practice.) Turin: Bocca, 1930.—After a rapid survey of what could be called the "anatomy and physiology of the subconscious" in man, the author indicates that psychic experiences agree with the more refined laboratory experiments; in each disease, in addition to the physico-chemical element, there is a psychological and spiritual element. The second part of this work takes up the pathology of the subconscious, and of insomnia, amnesias, and other forms of neurosis. The third part is occupied with the diagnosis and therapy of the subconscious, psychophysical control, auto- and hetero-suggestion, etc. Finally there is a synthetic explanation of psychological remedies, psychoanalysis, epigenesis, etc.—*A. Benedetti* (Turin).

1411. **Goldenberg, M. A., & Volfovskiy, O. T. Opit izucheniya psikhotravmatizma rabotnikov mest zakliucheniya.** (A study of psychic traumatism in prison personnel.) *Trudi ukr. psikhonevr. instit.*, 1931, 15, 181–198.—40% of the 175 workers examined proved to be neurotic and 37% showed isolated neurotic symptoms. The questionnaire showed that 35% liked their work, 21% disliked it, the rest were indifferent. The chief reason for liking the work was its being comparatively easy; the reasons for disliking it were its enervating influence and the small salaries.—*E. Hanfmann* (Worcester State Hospital).

1412. **Gruhle, H. W. Ueber die Häufigkeit der Schizophrenie.** (The frequency of schizophrenia.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 140, 552–556.—In the Heidelberg Psychiatric Clinic, schizophrenic patients constitute about 23.9% of all cases received, 33.8% of all cases minus psychopathic and neurological cases, and 56.3% of all major psychoses (schizophrenia, manic-depressive insanity, paralysis and epilepsy). The high percentages indicate the social importance of schizophrenia.—*C. W. Fox* (Rochester).

1413. **Happich, C. Das Bildbewusstsein als Ansatzstelle psychische Behandlung.** (Pictorial consciousness as the point of attack in psychotherapy.) *Zentbl. f. Psychotherap.*, 1932, 5, 663–677.—Below and independent of thought-consciousness is a "middle layer" of pictorial consciousness, which is perhaps the center of personality. It corresponds in part to Jung's *Bilder* and *Urbilder*. In neuroses and psychoses the normal balance between thought and pictorial consciousness is disturbed. A flooding of thought-consciousness by "pictures" might be experienced as hallucinations. We pass through the pictorial zone in going to sleep and waking, and in it dreams occur. It is the storehouse of memories and the place of fantasies, myths, and the irrational; also, if thought is ready to seize on its productions, of the creative powers and genius. Primitive peoples live largely in this zone, but the modern European cannot remain long in it without special training. It can be systematically explored by meditation in the Eastern sense. For this relaxation is necessary (Schultz's autogenous training) and remaining in the "floating condition" by means of conscious regular breathing. Happich describes his "meditative psychotherapy" which consists essentially in teaching the patient to meditate on three ideas presented pictorially, like a landscape: return to the beginnings, from which a new life-content is formed; creative life; and conclusion, which is experienced as a great quietness. The patient's visual and verbal associations and inhibitions reveal his difficulties, which are then worked over by thought-consciousness. —*M. E. Morse* (Hyattsville, Md.).

1414. **Heuyer, G., & Le Guillant, L. L'affaiblissement intellectuel au début de la démence précoce.** (Intellectual impairment at the onset of dementia praecox.) *J. de psychol.*, 1932, 29, 535–549.—The authors find that the Binet-Simon tests, the Terman revision, and certain tests devised by Masselon and Monod serve to reveal the intellectual impairment which characterizes the early stages of dementia praecox. It is claimed that the tests have diagnostic value.—*N. L. Munn* (Pittsburgh).

1415. **Imber, I. Klinischer Beitrag zum Studium der akuten alkoholischen Angstpsychose.** (Clinical contribution to the study of the acute alcoholic anxiety-psychosis.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 140, 557–564.—In spite of entirely different character traits, the three patients examined showed

almost identical symptoms. The psychosis has an acute onset, a rapid course, and, with early treatment, a favorable prognosis. There is no basic depression, and autopsychic orientation is intact. The only emotional reaction is anxiety or fear toward the present.—*C. W. Fox* (Rochester).

1416. **Johnson, W. M. A new theory of insanity.** *Amer. Mercury*, 1933, 28, 64–67.—A brief exposition of a theory of insanity advanced by W. D. Bancroft, head of the chemistry department at Cornell. The theory is in line with an earlier view on anesthesia advanced by Claude Bernard in 1875. It maintains that certain chemical substances in the blood have the effect of coagulating the nerve proteins, while certain others have the opposite effect of dispersing them. If either process is carried far enough mental abnormality results. The theory agrees with Cotton's view that insanity is caused by the effect upon the brain of chemicals produced by focal infections, but holds also that intense and prolonged emotion may so affect the ductless glands as to render their secretions toxic to the brain cells, either coagulating or dispersing their proteins. An experimental test of the theory made upon 46 patients by Lang and Peterson of the state hospital at Marcy, N. Y., gave positive results in 83% of the cases.—*J. T. Metcalf* (Vermont).

1417. **Jones, D. C. Mental deficiency on Merseyside.** *Eug. Rev.*, 1932, 24, 97–105.—Data collected during a social survey of Merseyside indicated an incidence of notified mental deficiency of 1.76 per 1000. Two determinations of sex ratio gave 57 males to 43 females and 55 males to 45 females. The incidence had an inverse relation to age and to occupational status of families, and a positive relation to family fertility.—*B. S. Burks* (California).

1418. **Khrakovskaya, S. A. Psikhologicheskie profili psikhonevrotikov.** (Psychological profiles of psychoneurotics.) *Trudi ukr. psikhonevr. instit.*, 1931, 15, 58–71.—An attempt is made to give the psychological characteristics of different groups of psychoneurotics as well as of epileptics and alcoholics, using the method of psychological profiles designed by Rossolimo.—*E. Hanfmann* (Worcester State Hospital).

1419. **Kinberg, O. Om rättspsykiatrisk och kriminalbiologisk expertis.** (On legal psychiatric and criminal biological expert service.) *Svensk. läkart.*, 1932, 29, 1174–1184; 1218–1226.—A comprehensive discussion of the theoretical and practical implications of the several new Swedish laws on abnormal individuals, recidivist criminals, insane individuals, etc.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

1420. **Kleiweg de Zwaan, J. P. Bijgeloof in den Indischen Archipel in zake krankzinnigheid. Samenvattend overzicht.** (East Indian superstitions concerning insanity.) *Tijdsch. v. h. K. Nederlandsch. Aardrijskundig Genootsch.*, 1931, 48, 609–638.—(*Soc. Sci. Abst.* IV: 16065).

1421. **Lasarev, V. G. [Lumbo-ischialgia and invalidism.]** *Sovietskaya psikhonevrol.*, 1932, No. 3, 28–35.—On the basis of 478 cases of lumbo-ischialgia which were followed for six years, the author states that insurance examinations not only should state the degree of work ability, but also should consult with those in charge of vocational guidance, in order to determine the further vocation of the patient.—*A. Yarmolenko* (Leningrad).

1422. **Lucena, J. A paralisia em Pernambuco.** (General paralysis at Pernambuco.) *Arq. d. assist. a psicopat. d. Pernambuco*, 1932, 2, 93–99.—*J. W. Nagge* (Chicago).

1423. **Maggiore, S. Turbe di crescenza fisica e psichica.** (Disturbances in physical and psychological growth.) *Federas. med.*, 1932, No. 3, 182–191.—The author reviews the general alterations in growth, such as macrosomia and microsomia (infantilism, nanism, and hypo-evolutism) and the partial alterations, such as growth syndromes found in the bony structure and ligaments, hemopathies, and neuropathies and psychopathies involving growth. Therapeutic indications regarding the disorders under discussion are given.—*R. Calabresi* (Rome).

1424. **Menninger-Lerchenthal, E. Eine Halluzination Goethes.** (An hallucination of Goethe.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 140, 486–495.—Goethe was the first to describe a form of visual hallucination in which the person sees himself. The name *heautoscopy* is suggested. A clouding of consciousness, through unnoticed dreaming, genuine dreaming, delirium, or intoxication is always involved. The experience is really a visuo-kinesthetic hallucination of the bodily schema. This split of the self involves a mechanism connected with the vestibular apparatus, brain stem and parieto-occipital region of the cerebral cortex.—*C. W. Fox* (Rochester).

1425. **Mooney, M., & Witmer, H. L. Ten problem children who later became psychotic.** *Smith Coll. Stud. Social Work*, 1932, 2, 109–150.—The authors studied the records of ten patients of the Cook County (Illinois) Psychopathic Hospital who had been examined at the Institute for Juvenile Research at least two years before their commitment, to discover whether future psychoses can be foreseen, and, if so, in what types of patients. In three of the ten cases the psychiatrist did not predict any later serious mental difficulty, in another four cases the psychiatrist recognized a marked personality difficulty and described the patient as either psychoneurotic or a psychopathic personality, while in the remaining three cases the psychiatrist either recognized or predicted an impending mental disease. In no case did a marked change in personality occur, but in successive examinations a definite accentuation of early traits was noted. These patients had two traits in common: each was described as solitary or seclusive, and eight of the ten possessed violent tempers. The ten cases are presented in detail.—*H. Lange* (New Hampshire State Hospital).

1426. **Oie, A. Nokre sinnsyke kongar.** (A few of the insane kings.) *Syn og Segn*, 1932, 38, 134–140; 202–213.—(*Soc. Sci. Abst.* IV: 22399).

1427. **Pernambucano, U. Assistencia a psicopatas em Pernambuco.** (The treatment of psychopaths at Pernambuco.) *Arq. d. assist. a psicopat. d. Pernambuco*, 1932, 2, 3–59.—The author presents a survey of the equipment of the Pernambuco hospital for the mentally deranged. Methods of treatment are also described.—*J. W. Nagge* (Chicago).

1428. **Pernambucano, U., & Campos, H. As doenças mentais entre os negros de Pernambuco.** (Mental disorders among Pernambuco negroes.) *Arq. d. assist. a psicopat. d. Pernambuco*, 1932, 2, 120–127.—Of a total of 3292 cases admitted to the Pernambuco hospital for the mentally deranged, about 10% were negroes. The percent of negro inmates per population was almost twice that of the other races combined. The negroes appear to be more susceptible to involutional psychosis, mental deficiency, infective psychoses, and alcoholism than the other races, but less susceptible to schizophrenia and epilepsy.—*J. W. Nagge* (Chicago).

1429. **Peserico, M. Considerazioni sul comportamento degli instinti in latenza durante gli stati di malattia e di convalescenza.** (Considerations on the behavior of the latent instincts in disease and convalescence.) *Arch. gen. di neur. psichiat. e psicanal.*, 1932, 13, 30–34.—According to Ribot, affective disintegration during sickness occurs in the following order: impersonal feelings; altruism; ego-altruism; and finally purely ego-feelings. Even when a purely transient unfavorable situation of cenesthesia arises, the higher feelings are shattered. The degree of regression parallels the variations of the physical condition. During convalescence from severe illness, there is a restitution following the course of evolution of the affective life (childish behavior during convalescence, etc.).—*M. E. Morse* (Hyattsville, Md.).

1430. **Porto, L. A laborterapia na colonia de alienados.** (Occupational therapy in the colony for the mentally deranged.) *Arq. d. assist. a psicopat. d. Pernambuco*, 1932, 2, 116–119.—*J. W. Nagge* (Chicago).

1431. **Rieti, E. Le disposizioni eidetiche visive nei malati di mente.** (The predispositions to visual imagery in the mentally sick.) *Arch. ital. di psichol.*, 1932, 10, 14–24.—Using Kiesow's method of graphic reproduction, the author examined the predispositions to visual imagery in 75 adult patients of the psychiatric hospitals of Turin. The percentage of patients thus endowed was 8. Therefore, the author does not uphold the hypothesis claiming a pathological significance for visual imagery.—*R. E. Schwarz* (V. A. Hospital, Northport, L. I.).

1432. **Romagna, M. A. I fanciulli epilettici. (Note patogenetiche, cliniche, di assistenza e di terapia.)** (Epileptic children: pathogenetic and clinical notes on aid and therapeutics.) Rome: Pozzi, 1932. Pp. 186. 22 lira.—The author discusses our information relative to epilepsy. He insists on the necessity of helpful measures in regard to epileptic cases and especially in regard to epileptic children.—*R. Calabresi* (Rome).

1433. **Rosenstein, J. L. Almost feeble-minded.** *Psychol. Clin.*, 1932, 21, 126–132.—Each of the three cases described in this article appeared to be feeble-minded. In two of the cases the author showed that the real difficulty was a strong negativism. The third case was that of a child that had been diagnosed as a "spastic idiot." Intensive training taught him to walk and talk, and brought his mental ability up to normal.—*J. T. Metcalf* (Vermont).

1434. **Schilling, R. Ein Fall von choreatischen Dysarthrie.** (A case of choreic dysarthria.) *Monatssch. f. Ohrenhk.*, 1932, 66, 856–863.—Experimental phonetic examinations in choreic speech disturbances are rare. Schilling gives complete observations of this kind in a case of Sydenham's chorea in a man aged 27. The medical study of the case is also included. The features of the dysarthria were chiefly disturbances in speech rhythm and changes in accentuation, which the author has found to be characteristic for diseases of the extra-pyramidal system. The absence of choreic movements involving articulation is remarkable, although comprehensible when it is remembered that chorea is a disease of the extra-pyramidal tracts. Nevertheless, choreic dysarthria does not belong exclusively to the extra-pyramidal type, but presents a peculiar mixture of akinetic-hypertonic (parkinsonian) and hyperkinetic-dystonic (athetotic) pictures. Psychic influence is also marked, especially in the great differences in the phonetic phenomena in automatized and free speech. Tables and kymographic tracings are given, with a bibliography.—*M. E. Morse* (Hyattsville, Md.).

1435. **Scottky, J. Ueber präsenile Verblödungen.** (Presenile dementias.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 140, 333–397.—The writer reports ten cases of dementia having their onset in presenile ages and leading in most cases to death.—*C. W. Fox* (Rochester).

1436. **Sperber, M. Schulen und Sekten: socio-analytische Bemerkungen zur Situation der Pathopsychologie.** (Schools and sects: socio-analytic remarks on the situation of psychopathology.) *Zentbl. f. Psychotherap.*, 1932, 5, 579–593.—Sperber appraises psychopathology according to Marxian principles. His thesis is: The mind has never functioned except in the interest of a class, and the history of science is the history of class conflict on the intellectual front. Psychotherapy at its beginning represented a new attitude which might have become a social psychology. Instead, it degenerated into a pseudo-scientific instinct-materialism and an ethical sentimental idealism. Psychotherapy promises cure through socialization of the personality, but ethics implanted on instinct or individualism is incapable of producing socialization if the individual remains unaware of his social rôle. The neurotic way of life is justified in a competitive society. The psychic need of the bourgeois in the twentieth century forced the development of psychotherapeutic sects. Psycho-

analysis is anti-scientific and hence meaningless for Marxism. Adler's theory of inferiority has a limited value. His "social" feeling, however, is not really a feeling for humanity, but group feeling. When bourgeois psychopathology speaks of "humanity," it means the family. But the family of capitalist society, in which the neurotic tried to find security, and which was the greatest source of the neuroses, already belongs to the past. The psychotherapist, having no social consciousness, reconciles the patient to his family, and believes that he has reconciled him to humanity. Marxism demands not reconciliation, but revolution. Bourgeois psychotherapy is a reactionary reform. The immediate decision is between idealism and dialectic materialism. Historic bourgeois science, including psychology, is idealistic. It has come to a stop and is condemned to death. (The editors debated whether to publish this article, believing that Sperber's attitude is not in any sense scientific, but determined by a special political viewpoint. Nevertheless, they determined to print it, first, in the interest of scientific objectivity and as a refutation of his charges; and second, on account of its importance as an able and authoritative statement of the Soviet theory in regard to psychology and psychotherapy.)—*M. E. Morse* (Hyattsville, Md.).

1437. **Thurzò, E. v. La psicoterapia nella pratica medica.** (Psychotherapy in medical practice.) *Riforma med.*, 1932, No. 9, 311–312.—The article deals with the attitude of specialists and physicians in cases of psychoneuroses, with methods of treatment, and with somatic and psychological therapy. —*R. Calabresi* (Rome).

1438. **Vankowska, H. Grundumsatzstörungen unter dem Einfluss von Affekten beim manisch-depressiven Irresein.** (Disturbances in basal metabolism under the influence of emotions in manic-depressive insanity.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 141, 380–393.—Basal metabolism increases under the influence of unpleasant emotions (anxiety, despair, anger) both in normal and in depressed states. The reaction is clearest in cases showing excessive thyroid activity. The few deviating results probably depend upon hypofunction of the thyroid. Basal metabolism is higher in states of abnormal depression than in normal states. The respiratory quotient usually decreases under emotional influences. This may be a sign of emotional alkalosis. In the few cases in which the respiratory quotient increased an excessive compensatory reaction must be assumed. —*C. W. Fox* (Rochester).

1439. **[Various]. Abstracts of theses, Smith College School for Social Work, 1932.** *Smith Coll. Stud. Social Work*, 1932, 2, 183–210.—These theses are grouped by subject as follows: (1) factors associated with success or failure in the treatment of child guidance clinic patients; (2) studies of psychotic patients; (3) studies in delinquency; (4) studies in psychological mechanisms; (5) studies in psychometrics; and (6) miscellaneous studies.—*H. Lange* (New Hampshire State Hospital).

1440. **Weil, F. Ein Bekehrungserlebnis als Inhalt der Haftpsychose eines oligophrenen Mörders.** (An experience of conversion as the content of the prison psychosis of an oligophrenic murderer.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 140, 152–171.—*C. W. Fox* (Rochester).

1441. **Zeiner-Henriksen, K. Apoplektieforme Sensibilitätestörungen.** (Apoplectiform sensory disturbances.) *Acta psychiat. et neur.*, 1932, 7, 831–853.—Five case histories of middle- and old-age patients are given in detail, with the affected regions of each patient graphically depicted.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

[See also abstracts 1249, 1291, 1350, 1387, 1388, 1454, 1483, 1500, 1504, 1509, 1562 1570, 1580.]

SOCIAL FUNCTIONS OF THE INDIVIDUAL

1442. **Alexander, F. Contributions to psychological factors in anti-social behavior.** *Family*, 1932, 13, 142–147.—(*Soc. Sci. Abst.* IV: 17556).

1443. **[Anon.] Mensch und Politik.** (Man and politics.) *Psychol. Rundschau*, 1932, 4, 185–192.—An abstract of Behrendt's *Political Activism*, a study of the sociology and psychology of politics. It traces the development of the social feeling as fundamental to interest in politics, and analyzes the individualism-collectivism relationship.—*A. B. Herrig* (Michigan Central State Teachers College).

1444. **Bachler, K. Das Theater als Abwehr und Wunscherfüllung.** (The theater as defense and wish-fulfilment.) *Psychoanal. Bewegung*, 1932, 4, 359–364.—The relationship of the public to the theater is in all times the "play within the play" of Hamlet. The actor is the exponent of the auditor, allowing him experiences which he indulges only in fantasy. The unattainable is reached vicariously, with satisfaction otherwise denied to him in life. In its compensations for the failure of life attainments lies the psychical value of the theater in its various forms.—*A. B. Herrig* (Michigan Central State Teachers College).

1445. **Bergler, E. Das Plagiat.** (Plagiarism.) *Psychoanal. Bewegung*, 1932, 4, 393–420.—Authors are quoted to show the attitude that has been taken towards plagiarism. The author classifies the quotations according to the degree of consciousness of plagiarism that exists when the work of others is passed for one's own. He cites a number of motives prompting plagiarism. In his analysis of the unconscious type he uses the Freudian approach. He claims that plagiarism in some of its many forms is characteristic of all persons.—*A. B. Herrig* (Michigan Central State Teachers College).

1446. **Bien, E. Eine bemerkenswerte Statistik.** (Noteworthy statistics.) *Zentbl. f. Psychotherap.*, 1932, 5, 641–645.—The Vienna Institute for Sexual Research published in 1932 a popular explanatory book, *The Lexicon of Love from A to Z*. Attached to it was a form on which anyone might submit an inquiry to the Institute and receive free information and advice. Bien analyzes the first 50 of these ques-

tions. All were concerned with therapy: "What shall I do?" The most common motive for seeking advice by letter was disinclination to consult a physician directly. The outstanding fact about the questions was that 32 of the 50 persons (64%) were impotent for one reason or another, and were thus excluded from a normal sex life. Although these statistics are small, they are noteworthy, and the author believes that a similar percentage would exist in the general population among the group having sex disturbances. The remaining 18 persons sought advice concerning venereal disease, contraceptive measures, whether or not to marry, methods of increasing personal attractiveness, and a few concerning trivial matters. The entire series of questions gives an insight into the sexual structure of individuals who suffer for years from sexual disturbances without seeking treatment, or even knowing what kind of medical treatment is indicated.—*M. E. Morse* (Hyattsville, Md.).

1447. **Bonaparte, M. "Der Untergang des Hauses Usher" von Edgar Allan Poe.** ("Fall of the House of Usher" by Edgar Allan Poe.) *Psychoanal. Bewegung,* 1932, 4, 421–438.—This is a review of Poe's story in which he reproduces his own life. The author tries to analyze its happenings in the light of the Freudian contribution.—*A. B. Herrig* (Michigan Central State Teachers College).

1448. **Borges, C., & Lima, D. Investigações sobre as religiões no Recife.** (Studies on the religious colony of Recife.) *Arq. d. assist. a psicopat. d. Pernambuco,* 1932, 2, 138–145.—*J. W. Nagge* (Chicago).

1449. **Briffault, R. Will monogamy die out?** *Birth Control Rev.,* 1932, 16, 207–208; 223.—(*Soc. Sci. Abst.* IV: 22314).

1450. **Bychowski, G. Marcel Proust als Dichter der psychologischen Analyse.** (Marcel Proust as author using psychological analysis.) *Psychoanal. Bewegung,* 1932, 4, 323–344.—To Proust is attributed an unusual power of understanding of human nature, which has its roots in a self-understanding. Each character depicted shows self-identification, a power of empathy that creates a type that is highly artistic and becomes classic. An analysis of a number of his characters is given to show this unusual power of character delineation.—*A. B. Herrig* (Michigan Central State Teachers College).

1451. **Campanini, R. Interpretazione sociologica della vita psichica.** (Sociological interpretations of mental experience.) *Riv. di sociol.,* 1931, 5, 243–271. —(*Soc. Sci. Abst.* IV: 22300).

1452. **Carroll, H. A. A preliminary report on a study of the interrelationships of certain appreciations.** *J. Educ. Psychol.,* 1932, 23, 505–510.—The Meier-Seashore Art Judgment Test, the Hevner Music Appreciation Test, and the Carroll Prose Appreciation Test were given to 133 university students. Intercorrelations "indicate strongly that the relationship existing among the capacities to appreciate art, literature, and music is very slight. Literature and art show a somewhat greater tendency to vary together than do literature and music or art and music."—*J. A. McGeoch* (Missouri).

1453. **Cochiara, G. Il linguaggio del gesto.** (The speech of gesture.) Turin: Bocca, 1932. Pp. 132. L 10.—This study is based on a comprehensive knowledge of ethnographic, linguistic, and psychological literature. After a critical review of previous attempts at classification, the author takes up a psychological analysis of gesture and its cultural and historical development. While carefully refraining from hasty generalizations, he describes gestures of "aggregation," for example, prayer and greeting, and those of "neutralization," which serve for protection and also include phallic gestures. An instructive chapter is devoted to the rôle of the hand in gesticulation. Speech and gesture, according to Cochiara, are of equally primitive origin; both are subordinate to the thought. Gesture is a "silent word." If relationship to the thought is lacking, it is mere motion. Gesture is not, however, simply the support of speech, as it tends to become among the more highly civilized peoples; nor is it a rigid conventionalized expression. It is the immediate expression for concrete ideas.—*M. E. Morse* (Hyattsville, Md.).

1454. **Codeceira, A., & Barros, R. Psicopatia e criminalidade.** (Psychopathology and criminality.) *Arq. d. assist. a psicopat. d. Pernambuco,* 1932, 2, 146–148.—*J. W. Nagge* (Chicago).

1455. **Commins, W. D. The marriage age of oldest sons.** *J. Soc. Psychol.,* 1932, 3, 487–490.—The average age at which 538 oldest sons listed in *Who's Who* (English) were married was found to be 30.64 years, as compared with 32.44 years for 537 other-than-oldest sons. The writer believes that this reveals the effect of the mother-image of psychoanalytical theory on the choice of a mate, and hence on age at marriage.—*E. B. Newman* (Harvard).

1456. **David-Schwarz, H. Das Fremdwort als euphemistischer Ausdruck.** (The foreign word used as euphemism.) *Psychol. Rundschau,* 1932, 4, 176–180.—The author comments on the use of foreign words, especially by Germans, as a means of glossing over actual meanings. It belongs to specific periods, and is used by certain classes of over-fastidious people. It would be expected that our realistic age would not indulge in it to so high a degree as it does; it is perhaps a survival of a more prudish age. The author shows the types of words that are selected and comments on the possibility of German words expressing adequately the same meanings.—*A. B. Herrig* (Michigan Central State Teachers College).

1457. **Di Tullio, B. Il concetto di costitutione delinquenziale nella legislazione penale.** (The concept of criminal constitution in penal legislation.) *Giustizia penale,* 1932, 38, 1–15.—The author believes not only that an autonomous and specific criminal constitution exists but that this constitution is the cause of a positive predisposition to crime. This predisposition is the foundation of all criminal ac-

tivity, whether it is characterized by a precociousness or by a recidivistic tendency. In brief, it is the basis of all dangerous criminal forms. According to the author, the concept of criminal constitution will have an increasingly important place in penal legislation and in the modern principles from which will come the inspiration for the measures necessary for our struggle against crime.—*R. Calabresi* (Rome).

1458. **Eliasberg, W. Pathologische Haltungen im Wirtschaftsleben. Typen und Theorie.** (Pathological attitudes in economic life. Types and theory.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 139, 369–390.—*C. W. Fox* (Rochester).

1459. **Fligelman, F. Moral vocabulary of an unwritten language.** *Anthropos*, 1932, 27, 213–248.—(*Soc. Sci. Abst.* IV: 17837).

1460. **Fonseca Garcia, M. Las supersticiones del escolar cubano.** (The superstitions of the Cuban school child.) *Arch. d. Folklore Cubano*, 1930, 5, 199–221.—(*Soc. Sci. Abst.* IV: 19766).

1461. **Fortune, R. F. Manus religion.** *Oceania*, 1931, 2, 74–108.—(*Soc. Sci. Abst.* IV: 19803).

1462. **Fröschels, E., Dittrich, O., & Wilheim, I. Psychological elements in speech.** (Trans. by N. Ferre.) Boston: Expression Co., 1932. Pp. xvii + 270. $5.00.—Previous methods of study have treated speech only in its relation to the other psychological functions, but speech as a "psychically conditioned function" requires separate observation. The psychology of speech is concerned not only with the development of speech but also with the motives behind this creation and development. Such a psychological analysis of speech should consider the development of infant speech, aphasia, and folk psychology. (1) The study of infant speech reveals that its development follows the well-defined stages of simple reflex sounds; lallation, which leads to imitation or echolalia; and finally, voluntary speech, which consists of word sentences (nouns) at the beginning; later verbs and modifiers are added. These stages lead to the concept of "stratification" in speech development. (2) The forms of aphasia are as numerous as there are patients, but for convenience these can be grouped into general classes such as cortical sensory, subcortical sensory, cortical motor, subcortical motor, and combinations of all four. Students of aphasia are agreed upon the strata-like development of speech as revealed by the various symptoms. The speech of aphasics furnishes analogies for the several stages observed in the development of infant speech. (3) The development of speech in folk psychology through all the stages of gesture language and speech sounds furnishes close analogies to the development of infant speech and the speech of aphasics. Evidence is given to prove that the "word sentence" is the primary unit in speech development. The final section of the book, by Wilheim, on individualistic psychology concludes that: "Human speech as a mental phenomenon is a factor which represents figuratively or symbolically the experiences of life unconsciously conditioned or actively engaged in."—*C. V. Hudgins* (Clarke School for the Deaf).

1463. **Garrison, K. C. A study of the emotional characteristics of women prisoners.** *J. Soc. Psychol.*, 1932, 3, 472–477.—The Thurstone neurotic inventory was given in slightly abbreviated form to all the women in three penal institutions for white women in North Carolina. The group, 138 in number, had been committed for the following offenses: sex, 51%; delinquency, 18.1%; larceny, 5%; robbery, 3.6%. The scores obtained averaged 65.67 as compared with 43.82 for Chicago freshmen, indicating greater emotional instability. The more significant items are presented in a table. Most extreme are tendencies toward suicide and running away from home, feelings of unjust treatment at home and despondency, and rather strong wishes to avoid crowds, to be alone and to day-dream.—*E. B. Newman* (Harvard).

1464. **Heinitz, W. Eine Studie über den Gegensatz zwischen sprachlichen und sprecherischen Akzenten.** (A study of the contrasts between phonetic and gesticular-expressive accents.) *Monatssch. f. Ohrenhk.*, 1932, 66, 1117–1123.—Psychophysiologically, accent in speech is a question of tension and its relief. Speech is the logical fixation of a biological phenomenon, and it includes the components both of sound and of expressive movement. This fact leads to a series of practical conclusions of importance for the methodology of phonetics. A sharp distinction should be made between the phonetic and expressive complexes. The logical functions of speech may be combined entirely irrationally with the biological functions of expressive movements. All phonetic accents are merely orientation signs for understanding. The accents of the expressive functions are an acoustic covering layer in which the affective and esthetic presentations go on. The motor factor (the genetic basis of all expressive movements) is an extraordinarily delicate medium for the phonetic accents. Many deeper problems in the field of accent research in phonetics and dramatic expression will be solved through experiments in phonetics. The discussion is illustrated with examples of accent in poetry.—*M. E. Morse* (Hyattsville, Md.).

1465. **Hellwig, A. Psychoanalyse und Strafrechtspflege.** (Psychoanalysis and criminal justice.) *Juris. Rundschau*, 1930, No. 12, 133–137; No. 13, 146–150; No. 14–15, 160–163; No. 16–17, 173–176.—(*Soc. Sci. Abst.* IV: 17260).

1466. **Herbertz, R. Zur Psychologie des Untersuchungshäftlings.** (A contribution to the psychology of the person detained for examination.) *Psychol. Rundschau*, 1932, 4, 162–168.—The author deplores the necessary imprisonment of suspects for examination in connection with crime, and records the effect it has upon various personalities. He cites the possibility that innocent persons may confess to crimes in order to escape the unendurable anxiety. He notes the undesirable treatment of suspects, the idle hours, the broken self-respect even after release.

On the whole the places of temporary confinement are far worse than the regular prison with its routine of work and relaxation, with decent food and care. The great need for new methods of gaining evidence of crime is emphasized.—*A. B. Herrig* (Michigan Central State Teachers College).

1467. **Hopkins, P. The psychology of the family.** *Sociol. Rev.*, 1932, 24, 174–181.—(*Soc. Sci. Abst.* IV: 22313).

1468. **Kagarov, E. Essai des classification des rites populaires.** (An attempt at the classification of popular rites.) *Rev. instit. etnol. univ. nacional de Tucumán*, 1931, 2, 49–59.—(*Soc. Sci. Abst.* IV: 17807).

1469. **Keller, A. G. Societal evolution.** (Rev. ed.) New York: Macmillan, 1931. Pp. ix + 419. $2.50.—To the principles of variation, selection, transmission, and adaptation described in the 1915 edition of *Societal Evolution* the author has added abundant illustrative material, much of it contemporary in nature. The rôle of rational selection in social change is regarded as less important than in the original presentation. The appendix now includes an article on *Enervating Fatalism.*—*D. Katz* (Princeton).

1470. **Kutzner, O. Von der Verweltlichung der Sittlichkeit.** (The secularization of morality.) *Dtsch. Schule*, 1932, 36, 537–541.—From a period of exaggerated individualism we are thinking again of the nature and meaning of the group. The value of clubs and societies is cited as giving group solidarity, and especially the intermixture of various types of peoples as it exists in American civilization. The automobile and better roads today make better contact easy. The problem that arises is that of the moral values that are being established through this new relationship, in contrast with the individual aspect of the values previously emphasized, and the part that religion and education play in the development of these moral attitudes.—*A. B. Herrig* (Michigan Central State Teachers College).

1471. **Lalo, C. La vision déformante du Greco. Essai d'esthétique appliquée.** (The distorting vision of El Greco. Essay on applied esthetics.) *J. de psychol.*, 1932, 29, 590–646.—El Greco's paintings are analyzed in terms of physiological, doctrinal, mystical, and technical visual distortion.—*N. L. Munn* (Pittsburgh).

1472. **Latcham, R. E. Las creencias religiosas de los antiquos peruanos.** (The religious beliefs of the ancient Peruvians.) *An. de la Univ. de Chile*, 1929, 7, 279–334; 691–726; 727–744; 1155–1198; 1711–1804; 8, 239–278; 279–364; 747–870; 1525–1547; 1663–1745; 1485–1524.—(*Soc. Sci. Abst.* IV: 17816, 17823).

1473. **Lazarsfeld, P. An unemployed village.** *Character & Personality*, 1932, 1, 147–151.—This is a preliminary report of a study whose purpose was to determine the psychological aspects of unemployment by methods of modern research. The subjects were 1500 inhabitants of an Austrian village, all except 80 of whom are without employment. The data were collected through various social agencies, many of which had been set up by the group making the study. The following represent the attitude-groups into which the population falls with respect to their present status: resigned, 47%; broken, 39%; unbroken, 14%. There is a positive correlation between the series of attitudes and the present income, which indicates psychic collapse if the present conditions continue. Of the young, only apprentices have any plans for the future. The attitude of resignation is best illustrated in the attitude toward politics, heretofore the central point of public intellectual life. Papers are not read even when supplied gratis; individuals resign from political organizations even though dues may not be required; they no longer debate at the sparsely attended meetings; the number of personal denunciations against one another is greatly increased, which indicates that the need of conflict has been reduced from the level of politics to some lower stratum. One big problem is what to do with that thing unemployment has given most abundantly—time. The people have quit using the free library; they have lost fixed temporal points and cannot give an account of how they pass their time. —*M. O. Wilson* (Oklahoma).

1474. **Louttit, C. M. Clinical psychology.** *J. Indiana State Med. Asso.*, 1932, 25, 345–347.—A brief account of the value of clinical psychology to the general medical practitioner.—*C. M. Louttit* (Indiana).

1475. **M., P. Attempts to combat the habitual criminal.** *Univ. Pennsylvania Law Rev.*, 1932, 80, 565–572.—(*Soc. Sci. Abst.* IV: 22377).

1476. **MacDonald, A. Legislative ability in Congress, including a study of the Senate of the Sixty-second Congress.** *Cong. Record*, 1932.—A method for the measurement of the legislative ability of a congressman from the record of the amount of legislation which he has succeeded in having enacted and from the time which he has spent in speaking before the legislature, etc., is presented by the author. Tables showing the legislative activity of the Senate of the Sixty-second Congress and its results and an estimate of the legislative ability of these men are given. Factors influencing standing of members, such as previous life, whether member of majority or minority party, faithfulness of attendance, education, and previous membership in the House of Representatives are also considered.—*E. H. Kemp* (Clark).

1477. **Madden, R., & Hollingworth, L. S. How one race judges another for physical attractiveness.** *J. Soc. Psychol.*, 1932, 3, 463–469.—Pictures of 40 Caucasian adolescents were judged by 10 white and 10 Chinese judges for physical attractiveness, or "good looks." The white judges agreed with each other somewhat more closely than the Chinese, having an average intercorrelation of .407, as compared with .373. The judgments of the two groups differed considerably from each other, since they correlated only .470, while the coefficients of reliability

within the groups were .873 and .856. An attempted analysis revealed no factor significantly related to either set of judgments. In fact, the judges could as consistently pick out a "type" of face as they could discern an individual feature such as straightness of hair.—*E. B. Newman* (Harvard).

1478. **Manuel, H. T. The Mexican child in Texas.** *Southwest Rev.*, 1932, 17, 290–302.—Intelligence tests and school records show that the Mexican child ranks below the average school child in Texas. The Mexican child is likely to be overrated when he demonstrates talent above the average in a specific field, but he is just as likely to be underrated when he must enter into competition with children whose entire cultural heritage is radically different from his own.—(*Soc. Sci. Abst.* IV: 17449).

1479. **Marcus, G. Psychological realities and case work.** *Family*, 1932, 13, 147–150.—(*Soc. Sci. Abst.* IV: 17567).

1480. **Maresca, M. La religione come espressione della vita associata.** (Religion as an expression of social life.) *Ric. Relig.*, 1931, 7, 214–226.—(*Soc. Sci. Abst.* IV: 19262).

1481. **Newland, T. E. An analytical study of the development of illegibilities in handwriting from the lower grades to adulthood.** *J. Educ. Res.*, 1932, 26, 249–258.—The results of an analysis by 24 persons of 1,344,905 letters written by 2,381 individuals ranging in age from first grade children to adults in different occupations, showed 42,284 specific illegibilities in handwriting. Only 4 letters (*a, e, r, t*) contributed nearly 50% of the total illegibilities. The gross frequency with which illegibilities appeared tended to increase with age. Some 90% of the difficulties are analyzed into 25 categories.—*S. W. Fernberger* (Pennsylvania).

1482. **Perris, G. Le teoriche Lombrosiane nella nuova criminologia sovietica.** (The Lombrosian theories in the new Soviet criminology.) *Arch. di antrop. crim.*, 1932, 52, 40–48.—The author expounds briefly the present developments of neo-Lombrosianism in Soviet Russia, pointing out the contrast between the same and the philosophy of historical dialectical materialism reigning in Russia.—*R. E. Schwarz* (V. A. Hospital, Northport, L. I.).

1483. **Plant, J. S. Mental hygiene aspects of the family.** *Family*, 1932, 13, 39–45; 90–99; 118–126.—(*Soc. Sci. Abst.* IV: 17456).

1484. **Prikhodioniy, E. A. Yunie pravonarushiteli v dopre.** (Young delinquents in prison.) *Trudi ukr. psikhonevr. instit.*, 1931, 15, 133–180.—A study of 200 boys and girls from 11 to 17 years of age imprisoned for periods from one month to four and one-half years, mostly for criminal acts directed against property (82%); 60% of them were recidivists. The Binet-Simon intelligence test showed only slight mental retardation in most of the cases. Their ethico-emotional attitude proved to be not fully developed, especially for recidivists; the motivation was usually of utilitarian and hedonistic type and never reached the level of the purely ethical. The questionnaire concerning the attitude of the young delinquents to their offenses and to the imprisonment elicited the following results: 86% did not consider themselves at all guilty, blaming their delinquency on their material insecurity. 98% hated the routine life in prison, giving the unbearable boredom as a chief reason. 98% hated life in the common dormitory because of maltreatment by comrades and the poor sanitary conditions. They expressed a wish for more comfort, for shorter sentences, possibilities for learning a trade or working on a farm. In conclusion the author advocates isolation of the young delinquents from the adult criminals, sanitary improvements, and introduction of occupational therapy and of general instruction. A collection of characteristic prison songs is given in the appendix.—*E. Hanfmann* (Worcester State Hospital).

1485. **Rank, O. Art and artist.** (Trans. by C. F. Atkinson.) New York: Knopf, 1932. Pp. xlix + 431 + xii. $5.00.—The author presents a more matured consideration of a problem which engaged him about twenty-five years ago, viz., that of the psychological bases for the production of artistic works. The discussion is of a theoretical sort, copiously illustrated with material from the history of art. The chapter titles are: *Creative Urge and Personality Development, Life and Creation, Art-Form and Ideology, The Play-Impulse and Esthetic Pleasure, Microcosm and Macrocosm, House-Building and Architecture, Myth and Metaphor, The Formation and the Creation of Speech, The Poetic Art and Its Hero, Game and Destiny, Beauty and Truth, The Artist's Fight with Art, Success and Fame,* and *Deprivation and Renunciation.* Ludwig Lewisohn contributes a preface, and the author both a preface and an introduction.—*R. R. Willoughby* (Clark).

1486. **Reckless, W. C. Vice in Chicago.** Chicago: Univ. of Chicago Press, 1933. Pp. 332. $3.00. —*R. R. Willoughby* (Clark).

1487. **Sandschejew, G. Weltanschauung und Schamanismus der Alaren-Burjaten.** (The world philosophy and shamanism of the Alar Buryats.) *Anthropos*, 1927, 22, 576–613; 933–955; 1928, 23, 538–560; 967–986.—(*Soc. Sci. Abst.* IV: 16073).

1488. **Sayre, F. B. Mens rea.** *Harvard Law Rev.*, 1932, 45, 974–1026.—(*Soc. Sci. Abst.* IV: 17271).

1489. **Schanck, R. L. A study of a community and its groups and institutions conceived of as behaviors of individuals.** *Psychol. Monog.*, 1932, 43, No. 2. Pp. 133.—Using Allport's *Outline for the Study of the Social Relationships of an Individual* as a device for securing data, the investigator studied the attitudes expressed by residents of "Elm Hollow" and by others who were familiar with this community toward various social institutions and practices. "Elm Hollow" is a small settlement between Syracuse and Waupon. A scale of 5 divisions, based on the relative amount of the possession of the ideology of "belonging" or "not belonging" in the community yielded 231 individuals who "belonged in" and therefore possessed the *E* factor, and 88 who

did not "belong in" and hence possessed the *e* factor. After summarizing the ecological aspects of the community, the author analyzes its population with respect to sex, age, vocation, national stock, political and religious affiliations, and income. The study is devoted primarily to the attitudes expressed by members of the two churches of the community with respect to baptism, card playing, ownership of church property, etc., and to the attitudes of the members of the A. K. O. lodge with respect to issues connected with the lodge. Attitudes toward tariff, prohibition, school affairs, and politics were also studied. Among the important findings is the fact that many members of the community had two attitudes toward the same issues: their personal or personality attitudes tended to fall into normal distributions, while their attitudes representing institutional ideologies tended to be J-shaped.—*F. A. C. Perrin* (Texas).

1490. **Schrijver, J. Schriftverschijnselen, die uitdrukking van onoprechtheid en oneerlijkheid zijn.** (Graphological symptoms of insincerity and dishonesty.) *Tijdsch. v. wetenschap. graphol.*, 1932, **4**, 103–109.—A letter from a dishonest housemaid and one from her father, who had already been sentenced to eight years in prison, provided the material for the investigation. In this first part of the paper the author demonstrates the great difference between the two specimens of writing, corresponding to the difference in the general behavior. Just as the woman succeeded in concealing her cheating by assuming an appearance of decency, so she also attempted to conceal the signs of dishonesty in her handwriting. In the father's letter the symptoms of dishonesty are obvious.—*M. Rickers-Ovsiankina* (Worcester State Hospital).

1491. **Simpson, R. M. Mental and organic effects of reading.** *J. Gen. Psychol.*, 1932, **7**, 453–465.—The object of the experiment was to discover the mental and organic effects produced by reading detective stories in contrast with the reading of passages from academic material such as history, psychology, and geography. The average rate of breathing was consistently faster throughout the periods devoted to detective stories than in those devoted to academic material. The average rate of breathing decreased during the reading of detective stories and remained fairly constant during the reading of academic material. The final rate-level for breathing was about 2/10 of one cycle higher for the "exciting" material in contrast with the "non-exciting" material. The average length of the respiratory curve was consistently longer during the reading of "exciting" material in contrast with "non-exciting" material. The average length of the respiratory curve at the final level was 2.72 inches longer for the "exciting" detective stories than for the academic material; it was slightly over 4 inches longer than the curve for the "non-exciting" detective stories. Reading detective stories tended to reduce the pulse rate more than reading academic material. The blood pressure fell to practically the same final level at the end of 15-minute periods devoted to either detective stories or geography. Motor steadiness was improved more by reading detective stories than by reading history. No consistent difference was discovered in the influence exerted by reading either detective stories or academic material upon the speed and accuracy in discriminating between opposites or in solving simple problems in multiplication.—*H. Cason* (Wisconsin).

1492. **Smith, M. E. The direction of reading and the effect of foreign-language-school attendance on learning to read.** *J. Genet. Psychol.*, 1932, **40**, 422–451.—Does the learning at the same time of two languages of different order of reading direction lead to greater confusion and more errors of reversal than does learning one language at a time? A test was devised to determine preferred reading direction (vertical, horizontal, starting at left, etc.) in the form of twenty-five pictures on a card to be read by the subject; and a numerical score was derived to indicate degree of systematic procedure. Differences appeared in the type of direction, point of beginning, etc., with age. The numerical score was found to be correlated low with age, mental age, and ratings for orderliness, and significantly with ability in reading. Children studying two languages showed greater variability in type of performance, lower reading test scores, and more confusion of reading direction than did those studying only one.—*J. F. Dashiell* (North Carolina).

1493. **Steinitzer, H. Bijdrage tot het vraagstuk van het prestatievermogen.** (A note on the problem of proficiency.) *Tijdsch. v. wetenschap. graphol.*, 1932, **4**, 89–102.—Proficiency manifests itself in purposiveness, i.e., in the strength with which a drive strives toward a goal, and in the will power. According to different graphologists cited by the author, pressure is the graphic expression of will power. For instance, the handwritings of mountain climbers, famous for their phenomenal performances, enable us to study proficiency, since those achievements always make enormous requirements on body as well as on mind. The author analyzes the writings of eleven excellent alpinists and shows that it is not the will power alone that enabled them to achieve their goals. E.g., in some of these writings pressure had not been employed. In general there is but little resemblance between them. This is due to the fact that proficiency depends on the collaboration of different functions. Their graphological manifestation is therefore very complicated. Since the practical graphologist is expected above all to determine from handwriting the degree of proficiency of the writer, the problem treated in this paper may be considered of importance.—*M. Rickers-Ovsiankina* (Worcester State Hospital).

1494. **Stern, H. Ueber einige Grundprinzipien des Stimmermüdungsproblem.** (Some fundamental principles of the problem of vocal fatigue.) *Monatssch. f. Ohrenhk.*, 1932, **66**, 665–681.—In connection with the general problem of fatigue, Stern takes up the special factors concerned in fatigue of

the speaking and singing voice. These are: (1) use of parts of the vocal musculature in functions for which they are unadapted; (2) relative functional organ inferiority; (3) hyper- or hypoesthesia or paresthesias of the laryngeal mucosa, which are common among phonesthetic individuals; (4) a cessation of the exactly adjusted play of agonists and antagonists, which leads to the use of accessory muscles. At present there is no exact, objective method of measuring vocal fatigue. The best that can be done is to measure the accompanying phenomena and draw probable conclusions. There are four ways of diagnosing diminished vocal capacity due to fatigue: (1) judgment of the quality of voice production and observation of the individual; (2) measurement of energy production (gas exchange, etc.); (3) tests of certain functions (strength, exactness, etc.) before and after a given effort; (4) measurements of coordination—the most reliable of all. The author makes "coordination charts" for singers and speakers at times when they are in good condition. These records include articulation and kymographic tracings of thoracic and abdominal breathing. If the individual at a later time complains of vocal fatigue, a second series of charts is made. The criteria of fatigue are variations in the forms of the curves, expiratory tremolo, irregular and shallow respiration, and in some cases, asynchronism between the thoracic and abdominal breathing.—*M. E. Morse* (Hyattsville, Md.).

1495. **Sternman, S. P. Huliganstvo na Ukraine.** (Rowdiness in Ukraine.) *Trudi ukr. psikhonevr. instit.*, 1931, 15, 107–132.—A study of the delinquencies of the "hooligan" type committed in Ukraine in the year 1925–26 elicited the following results: 98% of the delinquents were men; the greater number were unmarried and under 23 years of age; factory workers and unemployed prevailed in the cities, farmers in the villages. Alcoholism played a greater rôle among the older delinquents. Group action was characteristic of the younger men. In villages most of these delinquencies were committed during the winter season; in cities they were distributed equally over the whole year.—*E. Hanfmann* (Worcester State Hospital).

1496. **Stojanowski, K. Zjawiska selekcyjne w szkole podchorazych rezerwy.** (Selective phenomena at a special military school.) *Kwart. psychol.*, 1932, 3, 395–438.—Correlations are made between anthropometric measurements and officers' reports of a battalion of 481 men in a special military school. Some distinctions of intelligence and character traits were found among different racial types. The more successful group from the social and psychophysical points of view was composed predominantly of the nordic, littoral, north-west, laponoidal and red-headed types, while the less successful group contained a greater percentage of alpine and other brachycephalic types.—*T. M. Abel* (Sarah Lawrence).

1497. **Thomas, C. A comparison of interests of delinquent and non-delinquent boys.** *J. Juv. Res.*, 1932, 16, 310–318.—A questionnaire concerning movie attendance, reading habits, and general recreational interests was given to 154 public school boys and 101 boys in a detention home. The delinquent boys expressed an interest in crime news somewhat more frequently than did the non-delinquent, though in both groups sports news was most preferred. The delinquents apparently used the public library less and attended the movies more than did the non-delinquent. The latter were the more likely to have radios in their homes. The kinds of sports and movie and radio programs preferred by the two groups of boys were not dissimilar.—*H. L. Koch* (Chicago).

1498. **Thurston, F. M. A bibliography on family relationships.** New York: National Council of Parent Education, 1932. Pp. 273. $2.00.—A comprehensive bibliography on the subject of family relationships. The period covered is roughly that from January 1928 to May 1932. The annotated references are classified under the following broad headings: *Family Backgrounds, Social Changes Affecting the Family Life, Marriage and Sex, Education of Youth, Parent Education, Family Problems Involving Social Guidance, Functions of the Family, Fiction, Research Methods, Rating Scales, Index.*—*R. M. Stogdill* (Ohio State).

1499. **Thurstone, L. L. The isolation of blocs in a legislative body by the voting records of its members.** *J. Soc. Psychol.*, 1932, 3, 425–433.—The steps are described by which the general methods of a multiple-factor analysis could be applied to the voting record of a legislative body in order to discover the various factors contributing to the vote of that body on any particular proposal, or the presence or absence of these factors in any given member of that body. A factor is thought of as being any policy, slogan, advantage, party, or other group characteristic which, when possessed by both a measure and a member, will incline him toward that measure.—*E. B. Newman* (Harvard).

1500. **Tulin, L. A. The problem of mental disorder in crime: a survey.** *Columbia Law Rev.*, 1932, 32, 933–963.—(*Soc. Sci. Abst.* IV: 21925).

1501. **Türkel, S. De schriftexpertise en de oorzaken van haar fouten.** (Expert testimony in graphology and causes of attendant errors.) *Tijdsch. v. wetenschap. graphol.*, 1932, 4, 110–115.—In this, the first part of his paper, the author enumerates the requirements which have to be met by the expert, first as to quantity and quality of the material compared, and second as to the specimen of handwriting which has to be obtained for the purpose of identifying the writer.—*M. Rickers-Ovsiankina* (Worcester State Hospital).

1502. **Twitmyer, E. B., & Nathanson, Y. S. Correction of speech defects.** Philadelphia: Blakiston, 1932. Pp. xviii + 413.—"This volume is presented . . . in response to existing needs for suitable material that shall offer a technique for the correction of types of speech mutilation, from the faulty articulation of the persistent 'baby talker,' to cases of profound stammering or stuttering." The essential

thesis of the authors is that since it is impossible to control general environmental conditions of individuals, the practical mode of attack must lie in the direction of establishing, within the individual, functional behavior patterns which will adequately cope with these conditions when they are met. "The systematic development of speech correction is dependent upon three basic fundamentals of normal speech": (1) correct breathing and the proper utilization of breath; (2) correct kinesthetic or muscular imagery involved in speech; and (3) the combination of these two. In order to meet this approach the authors have selected "from various sources" 5,102 words most frequently used in English speech, and from these have developed a series of exercises which are divided into 100 sections arranged progressively. As an aid to the arrangement of the exercises "a two-fold classification of Continuants and Stops, with the latter divided into eight groups, was made, independent of, yet in agreement with, traditional philological classification and with anatomical correlation on the basis of the Curve of Articulation." Part III of the book is concerned with the description and evaluation of individual progress charts. In the appendix the authors give the details of the development of the exercises.—*C. V. Hudgins* (Clarke School for the Deaf).

1503. **Utitz, E. Bemerkungen zu volkscharakterologischen Untersuchungen.** (Remarks on the study of folk characterology.) *Zsch. f. Psychol.*, 1932, 127, 138–151.—A free discussion of various methodological principles in the characterology of peoples. The importance of historical and comparative studies as a necessary supplement to those of a more strictly physiognomical nature is stressed. —*R. B. MacLeod* (Cornell).

1504. **Vullien, R. Des conditions de l'expertise médico-légale psychiatrique criminelle.** (Results of the survey of the medico-legal criminal psychiatric situation.) *Rev. pénitent. et de droit pénal*, 1930, 54, 85–94.—(*Soc. Sci. Abst.* IV: 17281).

1505. **Watts, R. Trend of crime in Canada.** *Queen's Quar.*, 1932, 39, 402–412.—(*Soc. Sci. Abst.* IV: 22394).

1506. **Weisser, E. A diagnostic study of Indian handwriting.** *J. Educ. Psychol.*, 1932, 23, 703–707. —Tables are given showing the age of the subjects and the scores in slant, alinement, quality of line, letter form, spacing, and total diagnostic score. Tables of intercorrelations are also published. Data are available for full-blood and mixed-blood Indians and for whites.—*J. A. McGeoch* (Missouri).

1507. **Witty, P. A. Education and the delinquent.** *Rel. Educ.*, 1932, 27, 799–803.—This article refers especially to three books: *The Delinquent Child*, White House Conference on Child Health and Protection (Century, 1932); *Crime Prevention Through Education*, Research Bulletin of the National Education Association, 10, No. 4; *The Child and Play*, J. E. Rogers (Century, 1932). In the condensed review and criticism given, the school is presented as the laboratory in which the wayward child may be early identified, and also the agency for his rehabilitation. The ages from ten to fourteen should be especially observed for maladjustments, since sufficient recreational exercises should be provided to ensure wholesome living.—*J. P. Hylan* (Stoneham, Mass.).

1508. **Yasser, J. A theory of evolving tonality.** New York: American Library of Musicology, 1932. Pp. x + 381. $6.00.—Yasser believes that the chief musical scales of the world belong to related and evolving systems. The initial link in the spiral of already existing scales is the sub-infra-diatonic variety, in which there are two regular and three auxiliary degrees. Yasser represents this as ("2 + 3") to indicate that although there are five tones in the scale, not all are of equal importance. The next system in the order in which Yasser conceives the evolutionary process to have occurred is that of the infra-diatonic, seven tone scales in which two of the degrees are auxiliary ("5 + 2"). The diatonic scale is next met ("7 + 5"). It should be noted that the formula for each stage is derived by taking as its number of regular degrees the total number of tones of the scale just lower in evolutionary position. The new number of auxiliary degrees is taken from the number of regular degrees of the scale just lower. Applying this logic to the present-day diatonic scale, Yasser concludes that the next ultra-diatonic scale of the future, which he calls the supra-diatonic scale, should have the formula ("12 + 7"). The book is written chiefly to elaborate on the possibilities of this scale. Yasser links his speculations to data gathered from the music of many races. A chapter is devoted to an attempt to contrast supra-tonality with atonality. It is held that tonality and atonality are synthesized by supra-tonality. Yasser has for some time been advocating a modification of the Ellis system of interval measurement. Ellis divided the octave into 1200 equally tempered intervals termed cents. Thus an equally tempered semi-tone is composed of 100 cents. Yasser believes that a division of the *tone* into 100 centitones is more desirable. (See III: 411). A table is given in which the centitone equivalents for many of the vibration-ratios are presented. The book has a comprehensive glossary and an index.—*P. R. Farnsworth* (Stanford).

1509. **Zeleny, L. D. Feeble-mindedness and criminal conduct.** *Amer. J. Sociol.*, 1933, 38, 564–576.—Lack of agreement among investigators regarding the relationship between feeble-mindedness and criminal conduct is found to be due primarily to a variability in standards for feeble-mindedness and in the estimates of the amount of feeble-mindedness in the non-criminal population. Prominent studies in apparent disagreement are found to be corroboratory when reinterpreted in terms of relatively constant standards. Criminals are found to be decidedly inferior when compared with the traditional standards of Terman, and slightly inferior when compared with the United States draft army. The United States draft army is shown to be the best available standard

for the non-criminal population.—(Courtesy *Amer. J. Sociol.*).

[See also abstracts 1202, 1311, 1345, 1351, 1364, 1379, 1398, 1399, 1406, 1411, 1420, 1426, 1428, 1440, 1510, 1532, 1541, 1542, 1549, 1551, 1553, 1557, 1559, 1562, 1563, 1567.]

INDUSTRIAL AND PERSONNEL PROBLEMS

1510. [Anon.] **Das soziale Pflichtgefühl als Grundlage der Berufsgesinnung und der Zerfall der religiös-ethischen Berufsideologien.** (The feeling of social responsibility as fundamental to vocational choice and the decay of the religio-ethical vocational ideology.) *Psychol. Rundschau*, 1932, 4, 180–184.—An abstract of Adolf Liechti's *Problems of Vocational Choice and Evaluation*. A discussion of work as obligation and work as free choice is presented, with the mental attitudes accompanying each. Work in the pre-capitalistic system was more personal and had accompanying attitudes not present in the high industrial organization of our day. Man no longer works to honor God and serve his fellow-men, but is driven by the whip of need. The article quotes from deMan's analysis of work.—*A. B. Herrig* (Michigan Central State Teachers College).

1511. [Anon.] **Zur Psychotechnik in der UdSSR.** (Psychotechnics in the USSR.) *Indus. Psychotechn.*, 1932, 9, 282–286.—The main difference of the psychotechnical institutes in the USSR from those found in other countries lies in the practice of having psychotechnical examinations form only a part of a very comprehensive testing procedure, which consists of a medical examination, case histories, and educational, anthropometric, and constitutional measurements. The thoroughness and extensiveness of these investigations becomes apparent from the list of hundreds of tests and examinations listed in this article.—*C. Burri* (Chicago).

1512. [Anon.] **Traffic accidents increase with diminished lighting, decrease with better lighting.** *Amer. City*, 1932, 47, 96.—(*Soc. Sci. Abst.* IV: 21972).

1513. [Anon.] **Effects of darkness in increasing traffic accidents in 46 cities.** *Amer. City*, 1932, 47, 108.—(*Soc. Sci. Abst.* IV: 21970).

1514. **Biegel, A. Das Anlernen der Höraufnahme durch Funkentelegraphisten.** (Training operators of wireless telegraphy to receive by audition.) *Psychotechn. Zsch.*, 1932, 7, 147–151.—A skilled operator in wireless telegraphy is required to receive by audition 100 to 105 signals. Up to the present, the training for this activity has been carried out by a method which, in its early stages, prevented the formation of an atomistic perception of signs. This occurred only upon the attainment of a certain level of proficiency, after which the differentiation of clang-pictures had to be learned. In the present work a new method of training is described, one in which clang-configurations are taught from the beginning. In the psychological laboratory of P. T. T. Holland two subjects were trained by means of this new method, and the results from this procedure showed a saving of 44% in terms of practice hours over the old training method. The author offers working material, learning curves, and instructions to all co-workers of other countries who would be interested to carry out further experimentation with this method.—*C. Burri* (Chicago).

1515. **Bloss, A. Die Hauptbestandteile der Eignungsfeststellung.** (The main aspects of aptitude determination.) *Indus. Psychotechn.*, 1932, 9, 225–229.—The main aspects of the determination of aptitudes are: scholastic records; medical records; psychotechnical measurements, such as those of intelligence, special abilities, and aptitudes; sensory acuity; motor adaptability; and finally, vocational and personality recommendations. A thorough student of vocational selection accepts all these various methods for personality and aptitude analyses, but he recognizes the fact that they have their demerits as well as their merits. Only some of these methods offer themselves for quantitative and objective studies, while others give mainly qualitative results which may be heavily biased by the user's special point of view or likes and dislikes.—*C. Burri* (Chicago).

1516. **Crawford, A. B. The legal aptitude experiment at Yale.** *Amer. Law School Rev.*, 1932, 7, 530–533.—(*Soc. Sci. Abst.* IV: 19329).

1517. **Dunlap, K. Some problems of street and highway.** *Scient. Mo.*, 1932, 35, 416–426.—A resumé is offered of the work of the National Research Council committee on the psychology of the highway; many problems are touched on, such as visibility of traffic lights, legibility of license plates, possibilities and limitations in selection of drivers, car body designing, educating the public, etc. The complexity of the traffic problem is emphasized, and a large place is claimed for the psychologist in its analysis, in cooperation with experts of other fields.—*J. F. Dashiell* (North Carolina).

1518. **Germain, J. La fatiga en la industria.** (Fatigue in industry.) *Med. d. trab. e higiene indus.*, 1932, 3, 131–148.—The author examines various conceptions of fatigue. Monotony, long working hours, high-speed machinery and noise are mentioned as factors in the arousal of industrial fatigue.—*J. W. Nagge* (Chicago).

1519. **Hirschhausen, H. Beobachtungen am Raumaufteilungsbrett.** (Observations on the organization of patterns on a cutting board.) *Indus. Psychotechn.*, 1932, 9, 251–253.—A group of subjects, some of whom had had training in designing and cutting out patterns, were given a set of various forms which they had to arrange on a board according to definite directions. Regardless of instructions, the subjects showed great individual variations in their ways of arranging these patterns. There seemed to have been various ways of approach, some of which were typical for a given person and relatively constant for several situations.—*C. Burri* (Chicago).

1520. **Köhler, O. Eignungsprüfung im Fabrikbetrieb.** (Aptitude testing in industry.) *Indus. Psychotechn.*, 1932, 9, 272–282.—The author discusses the working technique and financial balance of a test station of a large metal industry, and compares employment turnover with and without scientific selection. Although psychological testing and scientific employment selection costs about 5000 RM. per year, this sum is comparatively small if one considers that without scientific selection of the 3000 apprentices, which is the average number employed per year, and who cost about 50 RM. per person for training, as many as 15% turn out to be lost during, or soon after, their apprenticeship because of inefficiency. The saving due to eliminating these people at the beginning more than pays the cost for the maintenance of a psychotechnical laboratory.—*C. Burri* (Chicago).

1521. **Macphail, A. H., & Joslin, H. L. Psychological testing in schools of nursing. A general statement including results from the Rhode Island Hospital.** *Amer. J. Nursing*, 1932, 32, 875–884.—(*Soc. Sci. Abst.* IV: 19252).

1522. **Mallart, J. Orientación profesional y selección de personal.** (Professional orientation and personnel selection.) *Med. d. trab. e higiene indus.*, 1932, 3, 159–166.—*J. W. Nagge* (Chicago).

1523. **Melian, A. La capacidad visual y el trabajo.** (Visual capacity and work.) *Med. d. trab. e hig. indus.*, 1932, 3, 310–311.—Proper light distribution is essential to the proper working of the eye. Too much light produces hallucination; insufficient lighting, if prolonged, causes disturbance in the nervous centers which control the muscular equilibrium with resulting nystagmus, a common disorder with miners. The National Safety Council of the United States has estimated that 24% of industrial accidents are due to defective vision and illumination. —*J. W. Nagge* (Chicago).

1524. **Moede, W. Zur Psychologie des Konsums.** (The psychology of consumption.) *Indus. Psychotechn.*, 1932, 9, 281–303.—According to Moede salespeople and merchants should study the fundamental laws of consumption, which seem to be based on the law of supply and demand. Some important factors determining whether a given item of merchandise can be sold or not are its utility, familiarity, value to the user, and necessity. Thus, in order to make an article salable it must first be made known to a large number and variety of people and must have such great appeal that the public feels the need of possessing it. Further, if a trade-name be used, it must be one that is easily remembered, clear, and unique. It would be profitable for business houses to test their new merchandise experimentally and to develop means of selling which conform to these underlying laws, thus furthering the process of selling.—*C. Burri* (Chicago).

1525. **Nass, G. Eignungsprüfungen fur Arbeitspersonal.** (Aptitude testing for work personnel.) *Indus. Psychotechn.*, 1932, 9, 267–272.—Individuals fitted for labor guidance and labor relief work must be adept in clerical and office work, and they must have a good memory for events and practical facts. Their work must be carried out systematically and they must possess good organizing ability.—*C. Burri* (Chicago).

1526. **Oller, A. La previsión y la asistencia médica en los accidentes del trabajo agrícola.** (The prevention and medical treatment of agricultural accidents.) *Med. d. trab. e hig. indus.*, 1932, 3, 287–305. —The author discusses the causes of certain accidents likely to occur during farm labor. Many practical suggestions relating to proper working environment are given.—*J. W. Nagge* (Chicago).

1527. **Royo-Vilanova y Morales, R. La selección psicotécnica de los estudiantes de medicina.** (The psychotechnical selection of medical students.) *Med. d. trab. e hig. indus.*, 1932, 3, 310.—Psychological tests of aptitudes and intelligence are the most acceptable criteria for the selection of medical students. Spain has few institutes of vocational guidance, though Juan Huarte, doctor and philosopher of the sixteenth century, delineated the problem of proper vocational guidance. Royo-Vilanova proposes the creation of laboratories for vocational guidance as annexes to the high schools. The repression or the unwise direction of vocational motives may ultimately bring about serious psychic disequilibrium.—*J. W. Nagge* (Chicago).

1528. **Schorn, M. Psychotechnische Prüfungen gewisser Medikamente.** (Psychotechnical testing of certain medicines.) *Indus. Psychotechn.*, 1932, 9, 304–316.—A historical review of the effects of recresal as a fatigue eliminator prefaces this report of some experimental studies of the effect of this drug. The 20 different studies reviewed show conflicting results; some scholars seem to have established the efficacy of recresal in eliminating fatigue, while others seem to have proved just the opposite. The discrepancies between the results might be due to differences in approach and weakness of technique. In order to overcome some of these shortcomings Schorn performed a series of experiments in which a group of adults and children were given a pull-and turn-dynamometer test, a complex reaction test, a cancellation test, and a series of additional problems, before and after having taken a dose of recresal powder or a drink of water with sodium bicarbonate. This latter drink was given as a control. The subjects were also tested without any drink, either when working normally or when given suggestions. If only one dose of recresal was given no clear-cut effects could be seen on the quality and quantity of work. The control drink showed on an average just as much effect as did the drink with the drug. Both conditions gave somewhat better results than did that without any refreshment at all. Some tests with distilled water also showed beneficial effects; so did a few simple suggestions that the subject would do well. An experiment in which the drug was given for several weeks came out approximately the same. For the group as a whole recresal gave no better results than water or soda. For the

children there was a slight improvement in efficiency for mental work, but not for the dynamometer activity. Thus, according to these results, one cannot say that recresal, either after one or after several doses, improves an individual's efficiency. Any apparent improvement might be due to other factors, such as suggestion, etc., as well as to the effect of the drug.—*C. Burri* (Chicago).

1529. **Silberer, P. Intelligenztests und Berufstüchtigkeit.** (Intelligence tests and vocational efficiency.) *Psychol. Rundschau*, 1932, 4, 169–175.—An American writer has asked regarding the procedure in European industrial firms in studying the correlation between intelligence and vocational success. The author replies relative to the practice as it has come under his observation. He holds: (1) that intelligence is only one factor in vocational success; (2) that the type of intelligence is more important than the IQ; (3) that accomplishment tests cannot give insight into the intelligence type, and only a complete personality diagnosis can do so; (4) correlation between intelligence quotient measurement through accomplishment tests and success in vocation can give no adequate solution of the problem. He emphasizes clearly that intelligence is no safe criterion in determining vocational adaptability.—*A. B. Herrig* (Michigan Central State Teachers College).

1530. **Skawran, P. Psychotechnische Arbeiten in der Union von Süd-Afrika.** (Psychotechnical activities in the Union of South Africa.) *Indus. Psychotechn.*, 1932, 9, 254–255.—Pretoria is the only city in South Africa with a well established psychological laboratory. Some of the psychological work in progress is along the lines of individual psychology and mental aptitude, and personality testing. Also, some interest is shown in vocational guidance and industrial research. Some of these investigations have been reported in different journals, such as in the *Social and Industrial Review* during 1927, 1928, and 1929; in the *Journal of Science*, 1928; and finally, in the *South African Journal of Psychology and Education*. In the field of mental testing there exists a manual of physical and mental tests standardized for South African conditions.—*C. Burri* (Chicago).

1531. **Tramm, K. A. Ueber typische Verhaltungsweisen im Automobilverkehr.** (Typical modes of behavior in automobile traffic.) *Indus. Psychotechn.*, 1932, 9, 245–251.—The author discusses a series of "typical" good and bad ways of behavior of pedestrians and automobile drivers in heavy traffic. He shows why some kinds of behavior are not safe, and summarizes the proper reactions in a traffic behavior guide. In addition he suggests a working and living program for professional and routine drivers which is supposed to prevent undue fatigue and to give optimal efficiency in driving.—*C. Burri* (Chicago).

[See also abstracts 1206, 1324, 1476, 1555.]

CHILDHOOD AND ADOLESCENCE

1532. **Adams, S. A study of the growth of language between two and four years.** *J. Juv. Res.*, 1932, 16, 269–277.—A total of 286 hours of records concerning the vocalizations of 39 children at 83 different ages was obtained by a group of trained observers. 1 to 4½ hours of record was procured for each child, the age of the subject being, at the time of the observation, within one month of the age level which the data were to be used to represent. Standards based on approximately 12 cases are presented for the 24, 27, 30, 33, 36, 42, and 48 month levels. The speech was analyzed to determine the relative frequency of and age changes in imitation, spontaneous vocalization, and the use of elliptical sentences, fragments, repetition, conversation, social monologue, imperatives, answers, questions, egocentric remarks, and complete grammatically correct and incorrect sentences. The relative frequency of monologue, repetition, imitation, and sentence fragments tends to decrease with age; while imperatives, questions, and answers tend to increase. Complete ungrammatical sentences, after an early sharp increase, remain nearly constant. Reliability coefficients based on the odd-even method corrected by the Spearman-Brown formula are given for each of the categories; they range from .26 to .96. A plan for future work is outlined.—*H. L. Koch* (Chicago).

1533. **[Anon.] Institute of child welfare.** *Univ. Calif. Instit. Child Welfare Bull.* No. 5, 1932. Pp. 18.—Completed research, research now in progress and plans for future projects are reported, covering the following: intensive growth study, a long-time study of 61 normal infants, begun in 1928 and still in progress; the Berkeley survey, involving a selection of every third child born in Berkeley over a period of eighteen months, and consisting of social histories, pregnancy data, circumnatal records, and other factors in home regime; the work of the Guidance Clinic with 250 children; studies of twins; study of adolescents, for which an intensive program was planned involving cumulative records extending over a six-year period; the work of the Nursery School; studies of mental development from two to eight years; studies of mental development in older children; studies of personality measurement, and the use of the California Behavior Inventory; studies of motor development, including intensive studies of left-handedness; studies of emotions, including galvanometric studies, observations of emotional expressions in children by the short sampling technique, and the influence of emotional factors upon fluctuations in mental test performance; and studies of children's learning, with attention to the "insight" type of behavior, "configural" and "identical" responses, and studies of language learning and the development of language as a factor in social control.—*P. Seckler* (Clark).

1534. **Arctander, S., & Dahlström, S. What becomes of the children removed from home by the Oslo Child Welfare Board?** Albany: New York State Department of Social Welfare, 1932. Pp. 138.—This is a statistical follow-up study based on experiences of the Oslo Child Welfare Board during the period 1900–1928, in which are investigated the

results attained from the community's efforts for neglected and delinquent children who have been placed in reformatory schools and foster homes or have other educational treatment. The investigation originally embraced 3,347 individuals, but 585 of them were excluded. The actual investigation thus came to comprise 2,762 individuals, 1,800 boys and 962 girls. It is found that 32.9% of the boys and 4.8% of the girls were convicted of offenses after being discharged from the care of the Child Welfare Board. Of the boys removed from home before the age of 8 years 12.3% were afterwards convicted, of those removed after the age of 8 years 36.2%. The corresponding figures for girls were 1.4% and 6.3%. It is also found that the percentage of convictions for those removed after their 8th year rises sharply according to the age at removal and reaches its maximum (45%) for those removed latest. Whereas of the boys who had been constantly in care of families 19% were afterwards convicted, there were 50% convicted among the boys placed in reform schools. The majority of these latter had been removed late. Children subjected to especially varying treatment have a considerably higher percentage of convictions than that found for the whole number. The children who were particularly difficult in the period of treatment afterwards show the worst results. The percentage of convictions rises in proportion to the age of discharge from reform schools. Those discharged latest have the highest percentage. However, that half of the children who have been in reform schools are found to have kept away from crime is in itself a result of great value to the community at large. The fact that there have been no conflicts with the law in the first years after discharge offers no security for a successful development, as such conflicts often arise later. Of all those who avoid conflicts for a considerable number of years, only very few get into trouble later. This leads to the idea of effective after-care as a support for the young people after discharge. Such after-care has become more and more general on the part of the Oslo Child Welfare Board. No general comparison has been made between the proportion of relapse amongst the children here dealt with and other known statistics of relapse into crime. Only a small number of those convicted had been removed from home at an early age. Of those sentenced for several different offenses practically all were removed after the age of 8 years. Positive investigations regarding the position in life the children have attained in adult life show that the majority of them enter into those occupations in which the greatest number of the community at large are engaged. The question of children's mental peculiarities and their significance for the results was not dealt with, nor was a close analysis made of the surroundings from which the children came and their influences.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

1535. **Bayley, N. A study of the crying of infants during mental and physical tests.** *J. Genet. Psychol.*, 1932, 40, 306–329.—During an hour while each of 61 infants, aged from 0 to 12 months, was being handled and tested for a variety of traits, observation was also made of any crying. Some age differences appeared, especially in connection with the causes noted: in the earlier months crying resulted more from such internal causes as colic or fatigue and in later months from such external ones as strangeness of situation or handling. Some consistency in individual differences appeared both as to general emotionality and as to the specific effective causes. No relationship was found between crying and mental scores, socio-economic status, birth weight, birth order, or sex. In the earlier months the reactions seemed largely undifferentiated, but some diversification appeared in the later.—*J. F. Dashiell* (North Carolina).

1536. **Benetti, B. V. Metodi e problemi di educazione infantile.** (Methods and problems of child education.) Milan: Alighieri, 1932. Pp. 113.—The author studies here the problem of our relations with childhood, and in this connection points out three attitudes of the different social classes toward children. He gives special attention to that attitude which seeks for the development of the body as well as that of the mind in the children entrusted to our care. For the progress of this method the author presents us with a list of subjects all leaning toward a more intelligent outlook on childhood. They are: (1) the Montessori method; (2) the double antinomic soul of Froebel; (3) "that which lives and that which is dead" in Froebel's pedagogy; (4) physical and moral education and pedagogy; (5) historical aspects of child education; (6) Lucie Latter and the method of "living nature"; (7) the moral school of the "Mantesca"—the method of Gertrude and the peak of Rousseauian naturalism.—*A. Benedetti* (Turin).

1537. **Bezděk, C. Seelische Einflüsse in Leben und Erziehung des Kindes.** (Psychic influences in the life and upbringing of the child.) *Prakt. lék.*, 1932, 491–495.—Even a short time after birth, different infants react differently to the same environmental stimuli. Obviously, this variation depends on congenital factors. Soon, however, new traits develop, which together with the congenital characteristics build up the child's personality. The author discusses the origin of inferiority feeling in a too strict upbringing, as well as the methods, such as disobedience and impertinence, which the child uses to overcome the feeling. True education is directed to socializing the child—which presupposes that the educator has himself undergone the same process.—*M. E. Morse* (Hyattsville, Md.).

1538. **Bissett, L., & Laslett, H. R. A study of height, weight, and age among high school boys.** *J. Juv. Res.*, 1932, 16, 291–297.—1850 boys, ranging from 13 to 21 years in age and registered in the Oakland Technical High School, were carefully weighed and measured. It is concluded that the overlapping between age groups is so great that concern over deviation from the norm need be felt only if the deviation is 2 sigmas or more. The period of greatest annual growth in both height and weight was at 14 years. The second greatest growth in

height occurred at 15 years; in weight, at 13 years. The correlation between intelligence test scores (350 cases) and height was $-.185 \pm .283$; and between the former and weight, $-.41 \pm .024$. The use of community norms is defended.—*H. L. Koch* (Chicago).

1539. **Bonaventura, E. Psicología de la edad evolutiva. De la infancia a la adolescencia. Pedagogía experimental.** (Psychology of the age of change. From childhood to adolescence. Experimental pedagogy.) Barcelona: Araluce, 1932. Pp. vii + 300.—A popular exposition of the main findings of modern psychology of childhood and adolescence. After a preliminary study of general psychology, Part I is devoted to the development of the child up to the adolescent age. Part II is a review of the more usual tests in this field.—*G. B. Camargo* (Mexico).

1540. **Conrad, H. S. The validity of personality ratings of preschool children.** *J. Educ. Psychol.*, 1932, 23, 671–680.—Thirty children, aged 23 to 57 months, were rated by three nursery school teachers on a behavior inventory of 231 trait-descriptions. Each teacher starred her rating of traits which she considered of central importance for the child being rated. The agreement among the teachers concerning significant traits is high. The reliability and validity of the inventory vary importantly from child to child, a fact which is emphasized. It is thought that the inventory is valuable for many problems in genetic psychology.—*J. A. McGeoch* (Missouri).

1541. **De Arenaza, C. La readaptación social del menor delincuente.** (The social readjustment of the delinquent child.) *Bol. d. mus. soc. Argentino*, 1931, 19, 471–491.—(*Soc. Sci. Abst.* IV: 22413).

1542. **Dimock, H. S. The conduct habits of boy scouts.** *Rel. Educ.*, 1932, 27, 916–921.—This is a review and criticism of the monograph by H. P. Fairchild on *Conduct Habits of Boy Scouts*, which represents a study undertaken to determine whether the training given boy scouts has a character forming value. About 100 boys in each of ten communities were selected, of whom 50 were scouts and 50 were not; the two groups were compared with respect to delinquency as found in court records. These groups of 50 were also compared with respect to the twelve traits of character included in the Scout Law: trustworthiness, helpfulness, obedience, etc. Also, 25 scouts with delinquent records were similarly compared with 25 non-scouts also with delinquent records. In both of these comparisons the results were in favor of the scouts, but since the scouts are likely to come from families of relatively higher qualities of character, the study is regarded as lacking in significance.—*J. P. Hylan* (Stoneham, Mass.).

1543. **Ding, G. F., & Jersild, A. T. A study of the laughing and smiling of preschool children.** *J. Genet. Psychol.*, 1932, 40, 452–472.—Observations were made on 59 Chinese kindergarten children during stated periods, recording each laugh and smile and noting the stimulus situation, such as pictures, speaking and being spoken to, own motor activity, stories, etc. It was found that both laughter and smiling occurred most frequently in connection with motor activity, especially the subject's own; and that relatively more smiles and fewer laughs were excited by social situations (the latter not usually including others' smiling or laughing or others' crying, stumbling, or awkwardness). The reliability of the observations as measured by self- and by two-observer-correlations was fairly high. The authors find little evidence to support the special classical theories of laughter as due to derision, release from repression, etc. Individual and sex differences are noted, also high correlations between laughter and smiling, but negligible correlations between the former and such things as age, intelligence, height, and nutritional and socio-economic status. There was evidence that Chinese children laugh and smile as much as Caucasians.—*J. F. Dashiell* (North Carolina).

1544. **Dudley, V. Foster mothers: successful and unsuccessful.** *Smith Coll. Stud. Social Work*, 1932, 2, 151–182.—Twenty-two foster homes, chosen from those in use by the New England Home for Little Wanderers in October, 1929, were studied to determine the characteristics of a good foster home. The homes had been used by the agency for at least two years, and at least two children had been placed in each. A statistical comparison of these homes showed that (1) nearly all of the foster parents were middle-aged, (2) most of them had children of their own who were approaching adulthood, (3) in social position they were lower middle class, (4) they boarded children partly because they needed money, and (5) the women were largely aggressive and self-reliant. The difference between successful and unsuccessful foster mothers, however, lay in the degree of security they offered to the children.—*H. Lange* (New Hampshire State Hospital).

1545. **Eliasberg, W. Das Kind als Konsument und Werber.** (The child as consumer and intermediary.) *Zsch. f. angew. Psychol.*, 1932, 43, 83–99.—An article as to the needs of children as consumers, the appeals that are made to them through advertising, and the wishes that need to be met at various ages. Material for this article was gleaned from well-known manufacturing firms providing for the child's needs in clothing, food, toys, etc.—*A. B. Herrig* (Michigan Central State Teachers College).

1546. **Felder, J. G. Some factors determining the nature and frequency of anger and fear outbreaks in preschool children.** *J. Juv. Res.*, 1932, 16, 278–290.—The study purports to determine the relative frequency of anger and fear outbreaks in the indoor and outdoor play of nursery school children whose ages range between 3 and 5 years. A typical indoor and outdoor play situation was set up and kept constant with respect to such features as setting, equipment, number of children in the group, and hour of observation. Every child was observed in a group of three with every other child during one hour of indoor and one hour of outdoor play. The outbreaks were described by a check system which permitted the recording of the equipment involved and the cause

of the upset as well as its overt form, its resolution, and the attitude subsequent to it. Upsets of both the anger and fear varieties seemed more frequent during indoor than during outdoor play. The cause of the anger outbreaks did not seem to vary with the locus of the play. There was relatively more resistant and less retaliative behavior indoors than outdoors, but more of the latter upsets were followed by a cheerful attitude than were the former.—*H. L. Koch* (Chicago).

1547. **Ferrer, C. O. El temperamento autisto en algunos adolescentes.** (The autistic temperament in certain adolescents.) *Rev. Univ. Nacional de Cordoba,* 1930, 18, 199–217.—(*Soc. Sci. Abst.* IV: 17446).

1548. **Fischer, M. L. Character education in magazines for parents.** *Rel. Educ.,* 1932, 27, 785–792.—Since more and more of the bringing up of children has been delegated to school classes, teams, clubs and movies, parents have felt their control slipping away from them. To regain some of this lost influence various agencies have come to be offered the parent in the form of classes, clubs and literature which serve to foster a better understanding of child psychology and training. Three magazines, *Child Welfare, Parents,* and *Child Study* are analyzed with respect to the value of the help which they offer. The analysis is based upon the number and lengths of the articles devoted to character building and also upon the theories and methods presented. The author is impressed with the soundness of the theories of character training and finds scientific principles clearly presented. The principal criticism offered is that the material is largely confined to preventing or curing abnormal behavior, leaving something to be desired in presenting the social value of child conduct, religious perspective, and the ethical values in character development.—*J. P. Hylan* (Stoneham, Mass.).

1549. **Franceschi, G. J. La familia en el abandono y la delincuencia infantil.** (The rôle of the family in the abandonment and delinquency of children.) *Bol. d. mus. soc. Argentino,* 1931, 19, 461–470.—(*Soc. Sci. Abst.* IV: 22306).

1550. **Frith, G. D. Speech defects in children.** *J. Indiana State Med. Asso.,* 1932, 25, 245–250.—A resumé of the major speech disorders, with comments on etiology, clinical picture and therapy.—*C. M. Louttit* (Indiana).

1551. **Helman, I. La vida sexual de la juventud contemporánea.** (The sexual life of contemporary youth.) Madrid: M. Agular, 1932. Pp. 216.—Modern youth is revising the traditional values, is verifying the ancient and the new tendencies, is breaking away from mystical nebulosities and looking for the harmonious combination of the biophysiological rights of the individual with the interests of the group. "In the new ways of living, in the new ethics, in the new man, sexual life is one of the main elements. Contemporary youth wants to introduce harmony in this life, to fill it with a new romanticism, to liberate it from all falsehood and to create with it a social as well as an individual value." But in order to create new forms and values it is necessary to know the real facts. "The present book tries to give a sincere analysis of the facts, to discover what there is of dangerous and insane in this realm, still insufficiently studied, and to show, at the same time, the unrest that is torturing our youth in its looking for something new and harmonious." This is a book of facts about the sexual life and sexual conceptions and ideals of the working youth, and an explanation of how they are trying to solve conflicts and problems in this realm. 39 statistical tables and a large number of quotations illustrating young people's thinking on the subject are given. The research was conducted especially among Russian students and workers.—*G. B. Camargo* (Mexico).

1552. **Jensen, K. Differential reactions to taste and temperature stimuli in newborn infants.** *Genet. Psychol. Monog.,* 1932, 12, 361–479.—The technique developed in this research consisted in comparing sucking reactions to various experimental stimuli with a control sucking reaction, all curves being objectively recorded. Milk at a temperature of 40° C. was used as a control. The experimental stimuli were salt solutions of different degrees of saturation, glucose, and milk at temperatures above and below 40° C. In all 17 infants were observed. Large individual differences in thresholds were found, but thresholds for the same infant tended to remain constant. Differential reactions were secured as early as the second day of life. Differential reactions to temperatures of 55° and 15° C. and to .900% salt solution were secured. The moderately full baby is a better discriminator than the very hungry baby. Additional stimuli in the way of pinching the great toe, hair-pulling, and sudden dropping were also tried as to their effect on the sucking process. A review of previous investigations in the same general field opens the volume. A bibliography of 31 titles is appended.—*F. M. Teagarden* (Pittsburgh).

1553. **Leahy, A. M. Some characteristics of adoptive parents.** *Amer. J. Sociol.,* 1933, 38, 548–563.—The adoptive parents of 2414 illegitimate children in Minnesota have been characterized according to the presence of certain attributes. 89% are childless married couples. A larger percentage are native Americans than is true for adults in general, and their median age is older than that of comparable groups of true parents. An average of nearly ten years elapses between marriage and adoption of a child. This is five or six times the period preceding birth of the first child to parents in general. Girls are preferred to boys for adoption, although more boys are available, in a ratio of 104 to 100. The majority of adoptive parents are urban residents, which is related to the fact that most illegitimate children are born in the city. The median grade of schooling for adoptive parents is the eighth. The proportion of adoptive fathers in professional, business and managerial occupations is three to four times that of adult males in general. The tendency is the reverse in lower occupational groups. The majority of

adopted children are in homes of superior economic status. A larger percentage of older children than younger go into homes of farmers, indicating a possible preference by farmers for older children, or a selective placement.—(Courtesy *Amer. J. Sociol.*).

1554. **Merescalchi, A. Inchiesta su le aspirazioni dei bambini.** (A study of the wishes of children.) *Nuova antologia,* 1931, 279, 28–47.—(*Soc. Sci. Abst.* IV: 22310).

1555. **McElwee, E. W. The selection of candidates for trade school from a group of subnormal Italian girls.** *Psychol. Clin.,* 1932, 21, 133–134.—A study of the test scores made by 65 Italian girls, all 14 years of age, leads the author to conclude that measures of intelligence and educational achievement cannot be substituted for the Girls' Mechanical Assembling Test as a basis upon which to select candidates for trade school.—*J. T. Metcalf* (Vermont).

1556. **Mellinger, B. E. Children's interests in pictures.** *Teach. Coll. Contrib. Educ.,* 1932, No. 516. Pp. ix + 52.—18 plates were created around three subjects: an animal, a pine tree, and a child. Two styles were shown, realistic and conventionalized. Each subject and style was shown in black and white, two-color and three-color. 821 selected children of grades 1, 3, and 5 were asked to select the one of two pictures presented which they liked the better. 9 pairs of the pictures a day for three days were presented. "All grades chose more frequently the child in three-color, the pine tree in two-color, but the first grade alone preferred the animal in two-color." The realistic style was the more popular. The pictures are reproduced in black and white. Complete tables of percentages are given in an appendix.—*J. M. Stalnaker* (Chicago).

1557. **Mendenhall, G. S. A study of behavior problems.** *Psychol. Clin.,* 1932, 21, 77–113.—A study of 400 boys and 100 girls who presented behavior problems in school and who were examined with a view to placement in special classes. For each child a mental examination and a clinical diagnosis had been made. Of the girls studied 70% had a history involving sex problems, while only 16.5% of the boys had histories showing sex experiences, and these were incidental to their other delinquencies. A study of the ages of the children shows that the pre-adolescent and adolescent periods are critical in the appearance of delinquency. Almost all of these problem children are retarded in school, some because of low intelligence, others because of behavior difficulties. The median IQ is 81.8 for boys and 78.1 for girls. Approximately 90% have IQ's less than 100. 21 brief case histories of problem children of various types are included in the study.—*J. T. Metcalf* (Vermont).

1558. **Niederhöffer, E. v. Um die Sinngebung des Jugendalters.** (The significance of youth.) *Zentbl. f. Psychotherap.,* 1932, 5, 610–616; 645–663.—The author approaches the metaphysical problem of youth from the standpoint of a life philosophy. Puberty is metaphysically a transition from the idiopathic life of childhood to the sympathetic life. The distinction between the intuitive and intellectual types of personality comes out decisively at adolescence. For the first type, the inevitable loss of unity means an advance; for the second, a painful loss of the powers of the unconscious. True maturity is characterized by reverence for all living things. There is danger that too early and too much knowledge in youth will lead to loss of reverence. The rational explanation of sex has been overdone; the youth is robbed of its mystery before he has experienced it. The central problem of youth is the subordination of existence to life. Early sorrow and disillusion lead to impoverishment of life, because suffering can be transformed into good only when it can be fully experienced, as it can be only by the adult whose inner life has developed harmoniously. The metaphysical struggle clears up, one way or another, between the twenty-first and the twenty-eighth years, when there is the last great opportunity for a "general revision" of previous experience and a rebuilding at the level of one's own life in the light of self-knowledge and self-education. At this transitional period, the task is to loose one's self from all alien bonds and to return to the source of being, the cosmos—a return to childhood, although on an entirely different level.—*M. E. Morse* (Hyattsville, Md.).

1559. **Paz Anchorena, J. M. Las instituciones oficiales y provadas en la prevención y protección a la infancia desvalida y delincuente.** (Public and private institutions in the prevention and protection of dependent and delinquent children.) *Bol. d. mus. soc. Argentino,* 1931, 19, 448–460.—(*Soc. Sci. Abst.* IV: 22415).

1560. **Rauth, J. E., & Furfey, P. H. Developmental age and adolescence.** *J. Soc. Psychol.,* 1932, 3, 469–472.—The authors suggest that the real test of the recently reported correlations of play and other types of behavior with pubescence lies in a group in which the age is controlled. In this paper are presented the brief results of correlations of maturity of behavior as measured by Furfey's scale, and physiological maturity as indicated by Crampton's norms. The coefficients are —.16 at 13 years of age, .42 at 14 years and .79 at 15 years. An average positive correlation is thus found with age controlled.—*E. B. Newman* (Harvard).

1561. **Richardson, H. M. The growth of adaptive behavior in infants: an experimental study at seven age levels.** *Genet. Psychol. Monog.,* 1932, 12, 195–359.—This study from the Yale Child Development Clinic was inspired by Köhler's observation that experiments such as those which he used with chimpanzees "can be performed at the very tenderest age" on human subjects. The subjects for the experiment were 10 boys and 6 girls who were examined every four weeks from the age of 28 weeks to 52 weeks inclusive. The infants were from distinctly superior social groups. The purpose of the study was to analyze development rather than to establish norms. The examination periods made use of an arrangement of situations behind a screen involving a single string and later a series of multiple-

string situations. Lures, such as a squeaking cat of red rubber, a multi-colored doll, a wooden duck, etc., were attached to the strings. The infants showed a rapid development in adaptive behavior. Different types of perceptive attitude, representing different levels of maturity, were shown by: interest in the string rather than in the lure; interest in lure and apparently accidental contact with string; awareness of both without evident purposive utilization of string; experimentation; definite utilization of string to bring lure within reach. Perceptive capacity and motor capacity seem to develop together. A review of relevant experimental literature with both animals and children is given. A bibliography of 38 titles is appended.—*F. M. Teagarden* (Pittsburgh).

1562. **Rojas, N. La anormalidad psiquica en la delincuencia de menores.** (Mental abnormality in juvenile delinquents.) *Bol. d. mus. soc. Argentino,* 1931, 19, 426–441.—(*Soc. Sci. Abst.* IV: 22393).

1563. **Schneckenburger, H. Die Altersentwicklung und Milieubedingtheit des sozialethischen Verständnisses beim proletarischen Kinde.** (The age development and the conditioning influences of the social-ethical understanding of the proletarian child.) *Zsch. f. angew. Psychol.,* 1932, 43, 55–82.—This is a continuation of a study made of proletarian versus non-proletarian children in their responses to pictures of misdeeds. The author reviews previous sections and shows by what means children build up their social-ethical standards. The basis of judgment tends to become character traits rather than specific acts. Small children are dominated by the egocentric, older ones by the group opinion. The place of punishment, of rewards, of the opinion of loved ones, of conscience, of group opinion are studied as influencing the building up of children's attitudes toward right and wrong.—*A. B. Herrig* (Michigan Central State Teachers College).

1564. **Skeels, H. M. A study of some factors influencing form-board accomplishments of two- and three-year-old children.** *J. Genet. Psychol.,* 1932, 40, 375–395.—Some major factors of form-board performance were analyzed experimentally: (1) form discrimination, (2) object-meanings, (3) position, (4) number of pieces, (5) relationships of blocks and recesses. Five series of tests were used: geometrical form boards, animate and inanimate object form boards, identifications by naming, card silhouettes of geometrical forms and animate and inanimate objects, and the Goddard-Seguin board. Some findings are: for two-year-old children form boards are not valid measures of form discrimination, and both the object form boards and the Goddard-Seguin boards are too difficult for them; both geometrical and object form boards correlate higher with mental than with chronological age; changes in position of geometrical form boards made little difference in test results at any age.—*J. F. Dashiell* (North Carolina).

1565. **Sylvester, M. L. A clinical demonstration of superior children.** *Psychol. Clin.,* 1932, 21, 114–125.—A demonstration of five superior children (IQ's from 138 to 166) was given at the University of Pennsylvania at the nineteenth annual Schoolmen's Week. This article gives excerpts from the verbatim report of the demonstration and from Witmer's remarks on this occasion. Witmer distinguishes six important but very differentiated categories of performance: knowledge, intelligence, discrimination, mechanical efficiency, motivation, and will.—*J. T. Metcalf* (Vermont).

1566. **Szuman, S. Geneza przedmiotu. O dynamicznej integracji sfer zmysłowych we wczesnem dzieciństwie.** (The origin of the perception of objects. On the dynamic integration of the sensory spheres in early childhood.) *Kwart. psychol.,* 1932, 3, 363–394.—Perceptions of objects among children can best be described not only as polysensory reactions to a source of stimulation, but as an act of realizing a desire, a reaching out and taking possession of the object. Impressions from the distance receptors are not only enriched and supplemented by contact impressions, but in a sense controlled by them. The object for the child is something he can touch and hold. His perceptions become more and more elaborate as he becomes more and more adept at manipulation.—*T. M. Abel* (Sarah Lawrence).

1567. **Witty, P. A., & Lehman, H. C. A study of the reading and reading interests of gifted children.** *J. Genet. Psychol.,* 1932, 40, 473–485.—Data on 50 children in 1924 and 1929 based upon the children's reports, teachers' estimates, and parents' statements, bear upon the time spent in reading and the most popular material, by kind and by title. Sweeping conclusions are not drawn, but a plea is made for the enrichment of the gifted child's reading opportunities. —*J. F. Dashiell* (North Carolina).

[See also abstracts 1253, 1331, 1367, 1385, 1401, 1425, 1433, 1439, 1478, 1497, 1638.]

EDUCATIONAL PSYCHOLOGY

1568. **Banker, H. J. The student's ability index in higher educational institutions.** *J. Educ. Res.,* 1932, 26, 276–283.—By a formula which reads: Student's Ability Index = average student's marks for a year or term divided by chronological age at the time the marks are computed, times the mean educational age per grade divided by the average of the marks assigned to all students in the given grade and subjects, the author studies the results of 393 students. An analysis of the results by this formula indicates that it is fully as reliable as the older formula for measuring the student ability index for the lower grades and younger years.—*S. W. Fernberger* (Pennsylvania).

1569. **Barthelmess, H. M., & Boyer, P. A. An evaluation of ability grouping.** *J. Educ. Res.,* 1932, 26, 284–294.—Intensive study has been made of ability grouping for the last six years in five schools in Philadelphia, Pa. The basis of classification is comprehensive individual examinations in the primary grades and the Otis Classification Test or the Philadelphia Intelligence Test, followed by achievement

tests, especially in such subjects as arithmetic, geography and history. A number of such achievement tests are listed. A total of nearly 500 classified students and more than 900 in a control group from "unclassified" schools are considered in the present experiment. The results indicate that, as concerns the improvement of arithmetic, reading and technical English skills, there is a statistically significant difference in favor of homogeneously grouped pupils as compared with heterogeneously grouped pupils.—*S. W. Fernberger* (Pennsylvania).

1570. **Bennett, A. A comparative study of subnormal children in the elementary grades.** *Teach. Coll. Contrib. Educ.*, 1932, No. 510. Pp. ix + 81.—A report of a comparative study of a group of 50 subnormal children in the grades matched in chronological age and mental age with 50 children who had profited by one year or more of instruction in special classes. The special class group contained more gross physical defects, had poorer vision, and were poorer on achievement tests. A bibliography of 33 titles is given.—*J. M. Stalnaker* (Chicago).

1571. **Brown, F. J. Knowledge of results as an incentive in school room practice.** *J. Educ. Psychol.*, 1932, 23, 532–552.—Some of the previous work on knowledge of results is reviewed and criticized, and the influence of this factor upon drill in the fundamentals of arithmetic by 138 children in Grades 5A and 7A is reported. Comparison of equated groups shows that practice with knowledge produces more continuous gains than practice without. Boys are more susceptible to this incentive than are girls. —*J. A. McGeoch* (Missouri).

1572. **Caldwell, O. W., & Lundeen, G. E. An experimental study of superstitions and other unfounded beliefs as related to certain units of general science.** New York: Teachers College Bureau of Publications, 1932. Pp. 138. $1.25.—Remedial instruction with discussion and supplementary reading concerning unfounded beliefs was introduced into the subject matter of junior high school science courses. Illustrative of the questions discussed are: Is fish a brain food? Is it true that "brains and beauty rarely go together"? Are winters less severe now than they were 30 or 40 years ago? Three units were tried with 1799 pupils in 29 schools. Subsequent tests show gains in desirable responses after instruction of 33.3%, 49.4%, and 30.2% respectively for the three units. The percent of gain in knowledge was greater with reference to unfounded beliefs than for factual elements included. The items of the tests, with responses before and after instruction, are tabulated.—*M. P. Montgomery* (Faribault, Minn.).

1573. **Carroll, H. A. A standardized test of prose appreciation for junior high school pupils.** *J. Educ. Psychol.*, 1932, 23, 604–606.—The assumptions made and the test construction techniques are the same as those used in a previous test for senior high school pupils (*J. Educ. Psychol.*, 1932, 23, 401–410). Data upon the validity, reliability, difficulty, and distribution of scores of the present test are given.—*J. A. McGeoch* (Missouri).

1574. **Cheydleur, F. D. An experiment in adult learning of French at the Madison, Wisconsin, Vocational School.** *J. Educ. Res.*, 1932, 26, 259–275.—An experimental study to determine whether adults, beyond the usual school and college age, could learn a foreign language as thoroughly as school children or university students. Results are given for 39 students who completed the elementary course and 32 students who completed a higher course, during a three-year period. The trade, previous education and course grade are given for each of these adult students. The American Council Alpha French Test and the French Grammar Test were given at the end of the courses. The results are compared with those for students enrolled in the regular French classes at the University of Wisconsin. Analysis is made of vocabulary, grammar and silent reading. The results show that adults "with an educational background ranging from an elementary school training to a college degree and with widely different occupational pursuits can surpass the achievement of younger university students at the same levels of instruction."—*S. W. Fernberger* (Pennsylvania).

1575. **Clouser, L. W., Robinson, W. J., & Neely, D. L. Educative experiences through activity units.** Chicago: Lyons & Carnahan, 1932. Pp. 352. $1.80. —This volume comprises a record of some of the activities carried on during one year in two Kansas City schools, in which an attempt was made to show that activity units provide excellent opportunity for children's growth in character along with their study of subject matter. Part 1 epitomizes the authors' theories regarding the part played by activity units in child growth, and emphasizes the importance of following the child's natural interests in setting up and carrying out the activities. Parts 2 and 3 present the set-up, methods of procedure, and results, often illustrated, of some two dozen activities, including a puppet show, a circulating library, an original play, vacation activities, school banking, original songs, and special activities centering about Columbus Day, Armistice Day, Christmas, Washington's Birthday, etc. Full bibliographies of source-books and available materials are included, as is also an extended list of children's books suitable for a schoolroom book corner.—*L. A. Averill* (Worcester State Teachers College).

1576. **Coleman, W. H. A critique of spelling vocabulary investigation.** Greeley, Colorado: State Teachers College, 1931. Pp. 119.—This study aims at an evaluation of the validity of methods used and reliability of results obtained by those who have engaged in scientific study to determine spelling curricula. Thorndike, Horn, Gates, Jones, and McKee are among the research workers included in the analysis. A statistical comparison of thirty-three word lists resulted in a total of 12,781 different words, almost half of which number were common to less than 5 of all the sources investigated. After eliminating all words found in less than 15 of the 33 sources, and performing certain other statistical analyses, a list of 3017 words was evolved. This list

is included in the present volume.—*L. A. Averill* (Worcester State Teachers College).

1577. **Cornell, E. L. The measurement of trait differences in relation to their importance for classification of pupils.** *J. Educ. Psychol.*, 1932, 23, 528–531.—The problem of converting *z*-scores (scores in terms of sigma distances from the mean of the group) "into terms of 'teaching-distances' seems to be impossible of solution under these conditions. The results we find, however, seem to make the practice of comparing a pupil's achievement ages in various subjects with each other or with mental age of extremely doubtful value."—*J. A. McGeoch* (Missouri).

1578. **Cuff, N. B. Scoring objective tests.** *J. Educ. Psychol.*, 1932, 23, 681–686.—"When the answers are indicated on an answer sheet so that they can be marked with a mimeograph, true-false and multiple-choice tests can be scored from two to six times more rapidly than when the answers are indicated opposite the test items by frequently recommended methods." Scoring is also more accurate by this method. The advantages of the answer sheet are enumerated.—*J. A. McGeoch* (Missouri).

1579. **Cuff, N. B., & Donovan, H. L. Intelligence testing in teachers' colleges.** *School & Soc.*, 1932, 36, 830–832.—The data offered are based upon the returns from a questionnaire to which 146 college presidents responded. It was discovered that only four intelligence tests have wide use in the 146 teachers' colleges reporting, the American Council on Education and Otis tests having the widest circulation. Of all the schools, 73% employ some mental test. The most common use of the tests among the 22 listed is in giving advice on study programs.—*H. L. Koch* (Chicago).

1580. **Del Greco, F. Educazione ed igiene mentale.** (Education and mental hygiene.) *L'ig. ment.* 1932, No. 1, 3–5.—The author describes the different educational procedures in special cases of somatopsychological stigmata.—*R. Calabresi* (Rome).

1581. **Doll, E. A. Special education as a department of school administration.** *J. Educ. Res.*, 1932, 26, 241–248.—Education has two major purposes; preparation for life and for a livelihood. The usual instruction is given in fairly large groups. "Special education is an administrative device for meeting the needs of exceptional children more effectively than is possible under ordinary conditions in the regular classroom." Such special education requires suitable diagnostic facilities for the selection, classification and differential treatment of such children.—*S. W. Fernberger* (Pennsylvania).

1582. **Dowd, C. E. A study of high school graduates with reference to level of intelligence.** *J. Educ. Psychol.*, 1932, 23, 687–702.—From a study of large populations it is concluded "that the high school graduates are a selected group from the point of view of intelligence as measured by a group test administered in the sixth grade. This is shown first by the fact that the median percentile rank of the group is 73.80 as contrasted with 45.87, the median percentile rank of the entire sixth grade group tested in 1924. It is also shown by the fact that 47.9 per cent of this group made records comparable with those of the highest twenty-five per cent of an unselected group, that 83.5 per cent did as well as the upper fifty per cent of an unselected group, and that only 16.5 per cent dropped as low as the lowest fifty per cent of an unselected group." Other analyses of the data are also given.—*J. A. McGeoch* (Missouri).

1583. **Drake, C. A. A study of an interest test and an affectivity test in forecasting freshman success in college.** *Teach. Coll. Contrib. Educ.*, 1931, No. 504. Pp. vi + 60.—During a period of from 3 to 6 years the A. C. E. psychological examination was found to correlate with average first semester freshman grades in Adelphi College .40 to .51. The relationship was judged not to be linear. The Pressey X-O test was found of no value for prediction of grades. An interest test proved of small value. "Hope for improvement in predicting college success seems to lie in extensive experimentation with new instruments and methods rather than in intensive statistical treatment of the results." The bibliography gives 53 titles.—*J. M. Stalnaker* (Chicago).

1584. **Frandsen, A. The rôle of affective tone in learning to spell.** *J. Educ. Psychol.*, 1932, 23, 625–631.—"In a typical school drill situation, the efficiency with which children learned to spell words was shown to have little or no relation ($r = .109 \pm .06$) to the differences in the pleasantness or unpleasantness of the words."—*J. A. McGeoch* (Missouri).

1585. **Good, C. V. Cautions to the beginner in educational research.** *J. Educ. Res.*, 1932, 26, 302–304.—Suggestions regarding the choice and delimitation of problems, procedure and the treatment and interpretation of data.—*S. W. Fernberger* (Pennsylvania).

1586. **Hohenstein, A. E. Report of Project 1 of the eighth annual nation-wide testing program.** Bloomington: Public School Pub. Co., 1932.—*L. A. Averill* (Worcester State Teachers College).

1587. **Knowlton, D. C., & Tilton, J. W. Auditorium *versus* classroom showing of motion pictures in history teaching.** *J. Educ. Psychol.*, 1932, 23, 663–670.—Two groups, each containing 72 seventh-grade pupils matched on the basis of several different measurements, are involved. One group saw the photoplays in an auditorium in company with about 140 others. The other saw the plays in 35-pupil sections under the usual classroom conditions. "For all teachers and all units combined the gain made by the classroom group is sixteen per cent in excess of that made by the auditorium group, and the difference is statistically significant." Retention measures are likewise consistently in favor of classroom showing.—*J. A. McGeoch* (Missouri).

1588. **Kulemeyer, W. Ehrfurcht, Schweigen, Dienen.** (Reverence, silence, service.) *Dtsch.*

Schule, 1932, **36**, 527–537.—Pythagoras practiced giving his lectures behind a screen, in contrast with present-day educators who place themselves on a level with the student. The author doubts that there is great wisdom in the latter method. The child is an immature adult. The instructor should be a friend to youth, but his superior learning and experience give him a unique position. Reverence is defined and its place in education commented upon. Reverence is accompanied by silence. The new education encourages chattering. The modern school emphasizes elbowing aggressiveness (Adler's masculine protest) as opposed to subservience and service. The author holds there is no such thing as self-development, and believes that Nietzsche's philosophy has in it a basis for a wiser pedagogy.—*A. B. Herrig* (Michigan Central State Teachers College).

1589. **Laugier, H., & Weinberg, D. Le facteur subjectif dans les notes d'examen. Deuxiéme contribution.** (The subjective factor in examination grades. Second contribution.) *Année psychol.*, 1930, **31**, 229–241.—In this second contribution to the literature on this subject the authors consider: (1) differences in grading of professors on the same examination, (2) the variability of a single professor, (3) the possibility of agreement in the final grades of a judging body, (4) the importance of competence and erudition of a professor in the task of correction of papers. Wide disagreement was found between the grades of different professors on the same papers; it was found that a professor might vary as much on two successive markings as he differed from other professors on the first marking. A fairly high correlation was found between the mean grades of two separate judging bodies. A person totally ignorant of a subject in which he was grading papers, after reading a few papers in that subject, turned in grades which showed as high a correlation with the grades of professors of the subject as the grades of each professor showed with the others.—*E. H. Kemp* (Clark).

1590. **Lehman, H. C., & Stoke, S. M. A work book in educational psychology.** Athens, Ohio: Ohio University Book Store, 1931. Pp. 70.—*R. R. Willoughby* (Clark).

1591. **Malin, J. E. Diagnostic test in the mechanics of high school chemistry.** Form A and Form B, with answers and individual and class record sheet. Bloomington: Public School Pub. Co., 1932.—Selection of items for this test was based upon the analysis of six leading high-school chemistry texts and manuals, an analysis of students' errors made by 1,960 students, and an analysis of the College Entrance Board examinations from 1917 to 1927.—*L. A. Averill* (Worcester State Teachers College).

1592. **McElwee, E. W. A study of mechanical ability and homogeneous grouping.** *J. Juv. Res.*, 1932, **16**, 304–309.—Three groups of children relatively homogeneous with respect to intelligence as measured by two standard tests were given tests of mechanical ability. The range and per cent of overlapping of mechanical ability were the same for the bright, average, and dull groups. On the other hand, in three groups relatively homogeneous with respect to mechanical ability which were given tests of reading attainment, the highest scores in reading tended to be made by the individuals who were above the average in mechanical ability. The range in reading attainment, however, within a group about equal in mechanical ability was from 5 to 13 terms. It is concluded that the plan of homogeneous classification of children in schools, in order to be successful, would have to be on a subject rather than on an intelligence test score basis.—*H. L. Koch* (Chicago).

1593. **McMurtrey, G. W. A study of the relationship between some factors which affect school work.** *J. Educ. Psychol.*, 1932, **23**, 553–558.—The judgment of the brighter college students as to their intelligence is slightly superior to the judgment of their teachers upon the intelligence of the students. Students who earn all or part of their expenses, who are not on athletic teams, who dance, who attend movies less frequently, and who have no "dates" while in college, excel in intelligence those of whom the opposite is true. Scholastic excellence does not uniformly correlate with these factors in the same way.—*J. A. McGeoch* (Missouri).

1594. **Mort, P. R., & others. Fitting the school to the pupil; an application of educational accounting techniques to the Chicago public schools.** New York: Teachers College Bureau of Publications, 1932. Pp. 148.—*R. R. Willoughby* (Clark).

1595. **Odell, C. W. Standard achievement test on educational measurement.** Form 1 and Form 2, with answers, manual of directions, and class record sheets. Bloomington: Public School Pub. Co., 1932. —These tests aim to cover the more common items of content in beginning general courses in educational measurements. The tests include multiple-answer statements on educational measurement in general; matching exercises on prominent workers in the measurement movement; true-false exercises on available tests in various fields; and true-false exercises on educational measurement in general.—*L. A. Averill* (Worcester State Teachers College).

1596. **Peinado Altable, J., & Jaen Sánchez, J. Psicología pedagógica. "Lo subconsciente y la educación."** (Pedagogical psychology. "The subconscious and education.") Madrid: M. Aguilar, 1932. Pp. 196.—A book written from the psychoanalytical standpoint. The pedagogical implications of the theories of Freud, Jung and others are summarized. A short bibliography is appended to each chapter.—*G. B. Camargo* (Mexico).

1597. **Pope, R. V. Factors affecting the elimination of women students.** *Teach. Coll. Contrib. Educ.*, 1931, No. 485. Pp. vii + 110.—Of 629 students who enrolled as entering freshmen in 1925 in six liberal arts colleges an average of 48% (as high as 73% in one college) withdrew before graduation. The withdrawals were largely at the end of the first and second years. 5% returned later to resume their studies. 34% of the withdrawing students continued their formal education elsewhere. The withdrawing

group was less intelligent on the average than the graduating group. On the basis of questionnaire returns from 47% of the withdrawing students, 15 chief reasons for withdrawing are listed. Nine recommendations are given. The appendix lists the blanks used and a partial bibliography of 35 titles. —*J. M. Stalnaker* (Chicago).

1598. **Russell, C. Rating of school pupils.** New York: Bur. Publ., Teach. Coll., Columbia Univ., 1932. Pp. 74.—Criticisms of school reports reveal four general difficulties in the preparation of such reports. These difficulties are due (1) to a limited range of judgment from which grades are derived; (2) to variations in judgment of the teacher; (3) to lack of a fixed standard for grading; and (4) to difficulties inherent in the measurement of the effort of pupils. The range of judgments used in grading pupils may be increased by using standard tests, by using standardized classroom tests, and by reducing abstract objectives to more closely measurable standards. Standardized classroom tests employing similar techniques may also be used in objectifying ratings. The limitations, advantages, disadvantages and calculation procedures of the letter-grade scale, the percentile scale, and the M scale for use in determining a fixed grading standard and in adequately measuring pupil effort are fully discussed.—*C. C. Neet* (Clark).

1599. **Sangren, P. V., & Wilson, M. C. Instructional tests in reading.** Grades 1–4, Forms A and B. Four booklets, with four manuals of instruction, and individual and class record sheet. Bloomington: Public School Pub. Co., 1932.—The Sangren-Wilson tests aim to provide a means whereby the teacher can make frequent and continuous checks on pupil reading progress, to emphasize careful consideration by the teacher of all the skills to be developed in reading, and to locate the various tests in each school grade on the basis of the aims generally accepted for reading instruction. The most essential types of reading skill for the grades are measured. For example, the Grade 1 tests include word recognition, phrase recognition, understanding sentences, following directions, and association of rhyme or sentence with illustration. Provision has been made for measuring all five types of reading ability in the first half of the year and again in the second half of the year. The tests for grades 1 and 2 are made attractive by numerous sketches of persons or objects referred to in the test problems.—*L. A. Averill* (Worcester State Teachers College).

1600. **San Martino del Pardo, F. La volontà coercitiva e la morale nella scuola popolare.** (The coercive will and morale in the public school.) Catania: Coniglione e Giriffrida, 1932. Pp. 54.—The author tries to show the inefficacy of certain coercive and constraining methods of education with children; and the need, on the other hand, of respecting in the child the initiative of the ego, without forcing his activity and his free expression with the authority of a spirit strange to him and to his individual and native constitution.—*A. Benedetti* (Turin).

1601. **Schaaf, W. L. An outline of educational psychology.** New York: Barnes & Noble, 1932. Pp. 239. $0.75.—This is published as one of a college outline series. Its aim is to present a brief outline of modern educational psychology, having as its point of view "the reaction hypothesis." Texts referred to are: Gates; Jordan; Monroe, de Voss, and Reagan; Sandiford; and Starch. Chapters deal with: problems and methods; man as a reacting mechanism; human behavior; nature and measurement of intelligence; statistical methods; individual differences; growth and development; developmental stages of the individual; the learning process; the improvement of learning; achievement and capacity; mental hygiene; language; reading; handwriting; spelling; arithmetic; and social sciences. An index is provided. Each chapter is followed by a list of selected references. Considerable use is made throughout of classificatory and descriptive subheadings and of varied type-faces. Occasional pictorial illustrations are given.—*O. L. Harvey* (Boston).

1602. **Shannon, J. R. Geographical distribution of leaders in education.** *School & Soc.*, 1932, 36, 720–722.—The biographical sketches in Cattell's *Leaders in Education* are the sources of the information used in the study. Most of the leaders proved to be members of college faculties. California, Illinois, Indiana, Massachusetts, Ohio, and Pennsylvania are the states in each of which more than 5% of the educational leaders of the country were born. California has now more leaders than it has produced, whereas the reverse obtains for Indiana.—*H. L. Koch* (Chicago).

1603. **Sims, V. M., & Knox, L. B. The reliability and validity of multiple-response tests when presented orally.** *J. Educ. Psychol.*, 1932, 23, 656–662. —Four forms of the *Thorndike Test of Word Knowledge* were administered, all within one month, to 100 pupils in grades nine through twelve. These multiple-response tests, presented orally, are only slightly more difficult than are the same tests presented visually. The two forms of presentation tend to measure the same thing with the same reliability. Correction for guessing does not improve reliability under oral presentation, but slightly increases the correlation between the two methods. Four or five responses are superior to three when tests are presented orally.—*J. A. McGeoch* (Missouri).

1604. **St. John, C. W. Some evidences of effects of the pupil's classroom adjustment upon his achievement test performance.** *J. Educ. Psychol.*, 1932, 23, 489–504.—It is found, with large populations in Grades I to VI, that school marks and achievement test scores correlate more highly when the marks are recorded in June and the achievement tests taken in November of the same school year than when the tests are taken in November of the following school year. This and other facts of the study are interpreted to mean that the cause of this difference in correlation is to be found in pupil-teacher maladjustment. Within a single year this condition affects both

marks and test scores, but not when the two are from different years.—*J. A. McGeoch* (Missouri).

1605. **Strang, R. M. The rôle of the teacher in personnel work.** New York: Teachers College Bur. Publications, 1932. Pp. 347. $2.00.—*R. R. Willoughby* (Clark).

1606. **Valeri, N. Introduzione all' "Emilio."** (Introduction to the *Emile.*) Turin: Paravia, 1932. Pp. 43.—The author goes over briefly all the works of Rousseau, with the aim of discovering his fundamental motive, i.e., the difference between nature variously conceived and history. The author specifies a first group of works (*Discourse on Inequality, Discourse on Literature and Art,* the preface to *Narcisse,* the correspondence on the theatre) in which this antithesis is realized in a rude contrast between nature, considered as ideal perfection, and civilization, which is the origin of all misfortune. In the *Social Contract* the great thinker justifies property and the state. In the *Emile,* he justifies an education which, little by little, leads to property, social life, culture—in a word, to the reconciliation of nature with history.—*A. Benedetti* (Turin).

1607. **Wagner, M. E. Improving reading ability of high school juniors.** *School & Soc.,* 1932, 36, 767–768.—About 50 high school juniors were given 105 minutes of training in reading distributed in 15-minute weekly periods. When paired on the basis of intelligence test scores and sophomore grades with another group of students, the reading-trained group six weeks after the training scored higher on the Nelson-Denny Reading Test.—*H. L. Koch* (Chicago).

[See also abstracts 1228, 1256, 1369, 1481, 1507, 1515, 1548.]

BIOMETRY AND STATISTICS

1608. **Camp, B. H. The converse of Spearman's two-factor theorem.** *Biometrika,* 1932, 24, 418–427.—Proof for the converse of Spearman's two-factor theorem is put forward, in addition to a certain necessary but hitherto neglected hypothesis. The possibility of the use of other than linear functions as the basis of the formation of the general factor is considered, a numerical example is given in which this factor is not unique, and the question as to whether this factor is "almost" unique is more fully discussed.—*E. B. Greene* (Michigan).

1609. **De Finetti, B. Sulla legge di probabilità degli estremi.** (On the law of probability of extremes.) *Metron,* 1932, 9, 127–138.—(*Soc. Sci. Abst.* IV: 19353).

1610. **Fieller, E. C. The distribution of the index in a normal bivariate population.** *Biometrika,* 1932, 24, 428–440.—Formulae and illustrations are given which show that the observed index distribution gives a fairly satisfactory fit to the theoretical, but that the former is more leptokurtic than the latter.—*E. B. Greene* (Michigan).

1611. **Franzen, R., & Derryberry, M. Note on reliability coefficients.** *J. Educ. Psychol.,* 1932, 23, 559–560.—Comment on a paper by Lincoln (see VI: 2034). "The reliability coefficient which is a function of the ratio of the differences between two independent measures of a trait to the variability of the trait in question is, therefore, the only proper evaluation of the degree to which the test makes bona fide distinctions between individuals."—*J. A. McGeoch* (Missouri).

1612. **Franzen, R., & Derryberry, M. Reliability of group distinctions.** *J. Educ. Psychol.,* 1932, 23, 586–593.—"The precision of the distinctions made with a given set of test materials is not always better for groups than it is for individuals. The reliability of the materials with different kinds of groupings must be determined. The correlation between random halves of constituent groups is an important aspect of the reliability of group distinctions. Categorical divisions in a series of groups must be examined for unique effect upon dispersion."—*J. A. McGeoch* (Missouri).

1613. **García, P. D. El tratamiento axiomático, aritmético y relacional del cálculo de las probabilidades.** (The axiomatic, arithmetical and relational treatment of the calculation of probability.) *Criterion,* 1932, 8, 245–258.—The calculus of probability was used by early scientists only because nothing better was at hand as a tool for science. It was believed that it was a calculation doomed to disappear as soon as experimental finesse had developed with a concomitant perfection of mathematical theory. It was firmly believed by many that determinism would soon replace indeterminism in science. However, far from confirming these theoretical provisions, the calculus of probability has continued to be a more and more vigorous tool until it has been used even in application to the atom and its laws. The time has come to consider the question as to the nature of physical law. Are physical laws deterministic or indeterministic in type; does the principle of causality or of probability dominate in the world of science? At the same time that the notion of inseparability was taking root in physics, the calculation of probability was also widening its fields of application. Discontinuity was translated by the concept of frequency while continuity developed an infinitesimal formulation. Today it is apparent in modern physics that the concepts of continuity and infinitesimal calculus in their traditional form dominate no fields except those of gravitation and electromagnetics. Probability has not yet found its application in these two latter fields. The other fields of physics have been dominated by the concept of probability, by individual discontinuity and its laws. For all calculation based on continuity there necessarily follows a certain determinism: actual union is not conceivable without a precise determination of parts which unite with each other. The mathematical function which translates the actual law arranges an order among the values. In all continuity the value of an object is determined by those of the vicinity. On the other hand, the relations between, and unions of, free bodies, especially if they belong to the same order, are more elastic: first, because each being com-

plete in its order, union with another will be transitory and not necessary because of internal necessity; second, because a physical law that one of two series of phenomena whose characteristic forces are divided individually does not determine which individuals of one class correspond to those of the other. Physical laws are laws of correlation between two aggregates, not between individuals; the relations between these are determined by the whole, not the whole by the parts. Physical laws are not distributive laws but collective ones. At present there are two modes of causality; one is of the deterministic-individual type, the other of deterministic-aggregate type as well as indeterministic and individualistic. The first we may call causal. The atomic laws and those of radiation are of the second type, those of electromagnetics are probably of the first. The principle of causality is neither true nor false; it is only an heuristic principle; it is an indicator useful in scientific investigation in order to arrive at fruitful conclusions.—*J. W. Nagge* (Chicago).

1614. **Griffin, H. D. How to construct a nomogram.** *J. Educ. Psychol.*, 1932, 23, 561–577.—Directions are given for the construction of nomograms for solving equations involving two variables and an unknown. There is an annotated bibliography of 73 titles.—*J. A. McGeoch* (Missouri).

1615. **Hendricks, W. A. Relative residuals considered as weighted simple residuals in the application of the method of least squares.** *Ann. Math. Statis.*, 1932, 3, 157–162.—Using a method of analysis based on a systematic weighting of the observation equations, the expression for the constant A in the equation $Y = AX^2$ is found to be identical with the expression previously obtained by minimizing residuals of the type $V - \frac{Y}{AX^2}$.—*A. K. Kurtz* (U. S. Civil Service Commission).

1616. **Moore, T. V. Partial correlation.** *Cath. Univ. Amer., Stud. Psychol., Psychiat.*, 1932, 3, No. 2. Pp. 40.—"There exists not only among students but also in the minds of some who write about partial correlation no little confusion as to just what is partialled out when one applies the formulae." A derivation of partial correlation is presented; the author concludes that the relationship between variables is unclouded by the influence of the variable partialled out. A method (determinantal) is presented for obtaining partial correlations of higher order. Its value lies mainly in the region beyond the six-variable problem.—*B. S. Burks* (California).

1617. **Nygaard, P. H. Interpretation of correlation on the basis of common elements.** *J. Educ. Psychol.*, 1932, 23, 578–585.—"According to this interpretation any trait can be regarded as composed of a summation of smaller subtraits, and these again may consist of still smaller components. The final components into which a trait is divided are called the elements composing the trait. The coefficient of correlation between any two traits will then depend upon the number of elements common to the two traits." This theory, already dealt with by Brown and Thomson and by Kelley, is stated and illustrated. Proof is offered of its agreement with the regression method, and its application to the two-factor theory is discussed.—*J. A. McGeoch* (Missouri).

1618. **Pearson, K., Stouffer, S. A., & David, F. N. Further applications in statistics of the $T_m(x)$ Bessel function.** *Biometrika*, 1932, 24, 293–350.—Two methods of comparing certain statistical coefficients are compared: the ratio method and the difference method. Formulae and two tables are provided for facilitating computations. A number of illustrations show that the difference test is more stringent than the ratio test. Difficulties of applying χ^2 methods to various samplings are pointed out.—*E. B. Greene* (Michigan).

1619. **Pearson, K. Experimental discussion of the (χ^2, P) test for goodness of fit.** *Biometrika*, 1932, 24, 351–381.—The common problem of deciding whether or not two samples came from the same parent population is approached by calculating how far an unknown parent population may be replaced by the smooth curve deduced from a sample. The raw score and smoothed frequencies of eight basic samples taken from Tippett's random sampling numbers are compared with the parent sample. It is shown that even when the size of the sample is small a much better probability (P) is obtained from the graduated than from the raw sample. Limitations from size of sample and methods of graduation are considered.—*E. B. Greene* (Michigan).

1620. **Pearson, E. S. The percentage limits for the distribution of range in samples from a normal population (N less than 100).** *Biometrika*, 1932 24, 404–417.—A table is given showing the upper and lower limits of the .5, 1, 5, and 10 percentiles for samples from a normal population from 2 to 100 items. An experimental check of 1000 random samples from Tippett's numbers is analyzed, and some practical applications are given to the problem of determining whether certain samples differ significantly in variability and mean scores.—*E. B. Greene* (Michigan).

1621. **Pearson, K. On the probability that two independent distributions of frequency are really samples from the same parent population.** *Biometrika*, 1932, 24, 457–470.—A warning is voiced against the "placing of too great a trust in the χ^2 method of estimating the difference of two samples by the spurious contingency method." Several illustrations are given to show the difficulties and advantages of certain assumptions regarding the parent population.—*E. B. Greene* (Michigan).

1622. **Rider, P. R. The distribution of the correlation coefficient in small samples.** *Biometrika*, 1932, 24, 382–403.—Tables and diagrams show the comparison of r from non-normal populations and normal populations having high correlations, in samples of 5 and 10 items taken experimentally from Tippett's random sampling numbers. "These distributions of r were not essentially different from the theoretical distributions in samples from a nor-

mal population which may be considered in fact as providing good first approximations. If this is true for samples containing so few items as 5 or 10, it will assuredly hold true for larger samples."—*E. B. Greene* (Michigan).

1623. **Spearman, C. Pitfalls in the use of "probable errors."** *J. Educ. Psychol.*, 1932, 23, 481–488.—This is a discussion of certain fundamental mistakes which are found in the current manner of interpreting the probable errors of tetrad differences. The interpretations and data of Garrett and Anastasi (*Ann. N. Y. Acad. Sci.*, 1932) are used as examples.—*J. A. McGeoch* (Missouri).

1624. **Wilks, S. S. On the sampling distribution of the multiple correlation coefficient.** *Ann. Math. Statis.*, 1932, 3, 196–203.—The distribution of the multiple correlation coefficient is "derived directly from Wishart's generalized product moment distribution without making use of geometrical notions and the property of the invariance of ρ under linear transformations of the independent variates" and without having to show that the distribution is independent of all population parameters except ρ, the population value of the multiple correlation coefficient. Except for slight changes in the notation, the distribution obtained is identical with that which R. A. Fisher obtained in 1928 by the application of geometrical methods.—*A. K. Kurtz* (U. S. Civil Service Commission).

1625. **Wilks, S. S. Certain generalizations in the analysis of variance.** *Biometrika*, 1932, 24, 471–494.—General formulae to predict the variances, ratios of variances, correlation ratios, and standard errors of estimate when all variates are drawn at random from a multivariate population are given. There is further consideration of the principle of maximum likelihood as a means of obtaining criteria for testing various hypotheses that two or more samples are drawn from the same parent population.—*E. B. Greene* (Michigan).

1626. **Wilson, E. B. A correlation curiosity.** *Science*, 1932, 76, 515–516.—"If three variables are correlated, how much more likely is it that the three correlation coefficients will be positive than that they will be negative?" The solution of this problem shows that the probability of three positive correlation coefficients is 0.1622, which is also the probability for one positive and two negative coefficients. The probability of three negative or one negative and two positive correlation coefficients is 0.0878; and the relative frequency is about as 1.85 to 1. Possibilities for a different solution are pointed out.—*C. H. Graham* (Clark).

1627. **Winsor, C. P. A comparison of certain symmetrical growth curves.** *J. Wash. Acad. Sci.*, 1932, 22, 73–84.—The logistic and normal curves are closely similar in shape and both differ widely from the arc-tangent curve. The logistic curve describes the growth of a population of yeast cells with better accuracy than does the normal curve.—*C. H. Graham* (Clark).

1628. **Wishart, J. A note on the distribution of the correlation ratio.** *Biometrika*, 1932, 24, 441–456.—"Beginning with a statement of the nature of the distributions, for three distinct cases, of the square of the multiple correlation ratio in samples from a normal population, the paper goes on to consider the third of these in detail,—where array totals are supposed to be the same for all arrays. Expressions are reached for the probability integral of the distribution, and for the mean value and variance of the square of the sample correlation ratio."—*E. B. Greene* (Michigan).

1629. **Wood, B. D. A new method for scoring the Strong Interest Test.** *School & Soc.*, 1932, 36, 718.—The method eliminates the hand selection of prepunched cards and involves the use of an attachment to the standard Hollerith tabulator.—*H. L. Koch* (Chicago).

[See also abstract 1499.]

MENTAL TESTS

1630. **Baker, H. J., & others. Tests of intelligence and aptitude.** *Rev. Educ. Res.*, 1932, 2, 271–342.—Contains the following summaries: general intelligence and its measurements; special abilities and disabilities; the nature and extent of individual mental differences; the construction and statistical interpretation of psychological tests; the general uses of psychological tests; the uses of psychological tests for atypical groups; and vocational aptitude tests and their application. Bibliography.—(Courtesy *J. Educ. Res.*).

1631. **Barros, R. O perfil psicologico de Rossolimo.** (The Rossolimo psychological profile.) *Arq. d. assist. a psicopat. d. Pernambuco*, 1932, 2, 79–83.—The Kovarsky modification of the Rossolimo profile test was given to fifteen criminals. The subjects were diagnosed as psychotics and neurotics. The suggestion is made that the profile may be of use in the diagnosis of mental disorders. The psychological functions measured by the test are attention, retentivity, will, judgment, power of combination, imagination, power of observation, apprehension, and knowledge.—*J. W. Nagge* (Chicago).

1632. **Barthelmess, H. M. The validity of intelligence test elements.** *Teach. Coll. Contrib. Educ.*, 1931, No. 505. Pp. vii + 91.—"In validating a test or test element, therefore, there are three essential factors: (1) test scores, (2) criterion scores, and (3) the statistical method used for comparing them. The discussion in this study is concerned mainly with the third factor." "On the basis of the average intercorrelation of validity values by each method with validity values by all other methods, the ranking is as follows: (1) eta with the multiple key, (2) biserial with the dichotomous key, (3) biserial with the multiple-dichotomous key, (4) corrected Vincent with dichotomous key, (5) Vincent with dichotomous key, (6) Long with dichotomous key, (7) McCall with the multiple key," etc. A selected bibliography of 37 titles is given.—*J. M. Stalnaker* (Chicago).

1633. **Book, H. M. A psychophysiological analysis of sex differences.** *J. Soc. Psychol.*, 1932, 3, 434–462.—The writer has tested a group of 475 men and an equal number of women with the four tests previously used by Snoddy in the Utah schools. The tests consisted of a pencil maze test, a number checking test, a block counting (from drawings) test, and a repetitive O and X pattern test. For these university students, the men excelled significantly on the maze and block counting tests, the women on the number checking and pattern recognition tests. The writer believes that women excel when attention to detail and quick adaptation are required, while the men are superior on tests where a more sustained logical and analytical attitude is required. This difference is explained in terms of colloidal constitution of the cell, polarization of semi-permeable membranes, differences in refractory periods of nerves of men and women, and a distinction between phasic and postural types of sense organs in the sexes.—*E. B. Newman* (Harvard).

1634. **Broom, M. E. Cranial capacity and intelligence.** *School & Soc.*, 1932, 36, 703–704.—By means of the Lee formula No. 14, based on measurements of the length, breadth, and width of the head, the cubic capacity of the brains of 100 college men and 100 college women was estimated. A very low positive correlation (.12) was found to exist between measures of cranial capacity and scores made on an intelligence test. The data also indicated that the "male" formula should be used in computing the cubic brain capacities of men subjects and the "female" formula for women subjects—i.e., that the two formulae are not interchangeable, as some had maintained.—*H. L. Koch* (Chicago).

1635. **Campos, A. Revisao da escala Binet-Simon-Terman.** (Revision of the Terman revision of the Binet scale.) *Arq. d. assist. a psicopat. de Pernambuco*, 1932, 2, 84–87.—The Terman revision of the Binet was applied to a random group of about 120 boys and girls, aged six and seven. Between 65 and 75% of the subjects of an age were required to pass a given test in order to allocate it to that age. The required percentage of the six-year-old subjects passed the following tests grouped under age six by Terman: right and left, mutilated pictures, repeats 16–18 syllables. The third test, counting 13 pennies, was too easy. Tests four and five, comprehension and coins, were too difficult for the age grouping, according to the criterion. In the seven-year grouping of tests, the bow knot test and that of copying a diamond were passed by the required number of subjects. The finger test was too easy, and the remaining tests too difficult for children of seven years of age.—*J. W. Nagge* (Chicago).

1636. **De Oliveira, M. Test de desenho de Miss Florence Goodenough.** (The Goodenough drawing test.) *Arq. d. assist. a psicopat. d. Pernambuco*, 1932, 2, 70–78.—The Goodenough drawing test was given to more than four thousand students ranging from five to fifteen years of age. Up to the age of nine the girls show themselves superior in mean score on the test; after this age the boys show the greater mean. The author suggests the possibility that the test may be highly correlated with intelligence.—*J. W. Nagge* (Chicago).

1637. **Feinberg, H. The Stanford revision of the Binet-Simon tests compared with the Pintner-Paterson short performance scale.** *J. Genet. Psychol.*, 1932, 40, 486–499.—Results on 807 children and adults, male and female, show fairly good agreement between results on the two tests for normal children, though less for superiors and adults, and little sex difference.—*J. F. Dashiell* (North Carolina).

1638. **Hallowell, D. K. Stability of mental test ratings for preschool children.** *J. Genet. Psychol.*, 1932, 40, 406–421.—Are standardized tests applied to preschool children prognostic (in terms of test-retest reliability) as has been demonstrated for those applied to children of school age? 436 children originally tested at ages ranging from 3 to 47 months were retested at ages from 1 to 8 years. The examinations used were the Gesell, Hallowell, Stanford revision, and Pintner-Paterson. A numerical rating on the percentage basis (90 to 110 as average) was used. Test-retest variations of less than 5 points were found in 48% to 55% of cases in respective age groups, those of less than 10 points in 78% to 88%, most variations being in direction of improvement. The variations increased slightly and irregularly with increase of test-retest interval. Change of environment and development of language were among the factors making for variation in ratings.—*J. F. Dashiell* (North Carolina).

1639. **Jordan, J. S. Reliability of Stanford-Binet intelligence quotients derived by student examiners.** *J. Educ. Res.*, 1932, 26, 295–301.—Analysis of 1,077 Stanford-Binet examinations made by second and third year students at the Washington State Normal School show that such examinations are almost as reliable as those conducted by experienced examiners.—*S. W. Fernberger* (Pennsylvania).

1640. **Lucena, J., & Barreto, L. Nivel de inteligencia e desenvolvimento fisico.** (The relation between physical development and degree of intelligence.) *Arq. d. assist. a psicopat. d. Pernambuco*, 1932, 2, 128–133.—The measures of intelligence employed were the Columbian mental test and Ballard's one hundred questions. Twenty-one bright students and an equal number of dull students were chosen from a group of three hundred who had taken the tests. The first group showed IQ's ranging from 147 to 130. The second group ranged in IQ from 78 to 61. Height, weight, and the indices of physical development yielded by the Spehl and Pignet formulas were obtained for the groups. The subjects of superior intelligence showed a greater mean physical development than those of the subnormal group.—*J. W. Nagge* (Chicago).

1641. **Matzkevitch, A. N. K metodike otiskani ja skritogo pathologicheskogo kompleksa po metodu Rorschacha.** (The use of the Rorschach test for discovering hidden pathological complexes.) *Trudi*

ukr. psikhonevr. instit., 1931, 15, 44–51.—An attempt is made to use the Rorschach test for detecting hidden complexes in psychoneurotics. The evaluation of the obtained material is evidently based chiefly on the content of the ink-blot interpretations given by the patients and is said to have revealed important indications as to the mechanisms of the neurosis. The findings are also corroborated by the Jung association test. A few examples are given.—*M. Rickers-Ovsiankina* (Worcester State Hospital).

1642. **Nemzek, C. L. The constancy of the IQ's of gifted children.** *J. Educ. Psychol.*, 1932, 23, 607–610.—From computations involving data already published by others it is concluded that "the correlations between the repeated IQ ratings of these gifted children tend to be lower than the correlations reported by other investigators for more unselected groups." "In all cases the mean IQ on retesting was larger than the initial mean IQ, two of the differences being statistically significant." This increase is attributed to practice effect.—*J. A. McGeoch* (Missouri).

1643. **Romahn, E. E sprawie obliczania wyników w próbie Bernsteina.** (Remarks on the calculation of results of the test of Bernstein.) *Kwart. psychol.*, 1932, 3, 459–465.—*T. M. Abel* (Sarah Lawrence).

1644. **Sollier, P., & Drabs, J. Le problème des aptitudes.** (The problem of aptitudes.) *J. de psychol.*, 1932, 29, 497–534.—An essay on the nature, classification, and measurement of aptitudes.—*N. L. Munn* (Pittsburgh).

1645. **Willoughby, R. R. Some properties of the Thurstone personality schedule and a suggested revision.** *J. Soc. Psychol.*, 1932, 3, 401–424.—Because of excessive length and the unequal value of the individual items, a revision of the Thurstone neurotic inventory is desirable. After weighting each item on the basis of eight different criteria, a final scale of 25 items is selected and presented for use with a five-point response scale. Low incidence is found to have no effect on the diagnostic value of an item, so this criterion is rejected. Darrow's empirically determined constellations are, however, accepted. The author then places all items in six logical categories which are found to be positively intercorrelated, but by values less than those between chance groupings of the same size. Both a multiple factor and tetrad analysis indicate a large general factor among the categories accounting for about one-half the variation. To a less extent they appear to represent independent, coherent constellations. Finally, a pair-by-pair analysis of the 40 most frequent items reveals a group of about 17 which are associated to a degree considerably greater than chance.—*E. B. Newman* (Harvard).

[See also abstracts 1375, 1386, 1515, 1521, 1529, 1579, 1582, 1592, 1629.]

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